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ORIGINAL ARTICLES.

THE FAITH CURE.

BY EGBERT GUERNSEY, M.D.

IF the bony frame-work of the human body were shown to one who had never seen a skeleton of a human being, he would at once recognize its character. Clothe it with the entire system of venous and arterial blood vessels, and the resemblance to the human form would be more complete, but when you advance one step higher and add the nervous system, the body is rounded out into such full completeness as to seem only to require the breath of life to live and move. As we ascend from the grosser forms of mere animal matter, from the bony frame-work to the higher and finer organizations of physical structure, from the mere machinery of the body up to its thinking portion, system above system, each of finer material, intertwining with each other, and supporting each other, we see the current of life descending from above downward, from the more highly organized structures to those less highly organized, each requiring something akin to itself into which the higher life can readily flow, without jar or break, completing the wondrous structure of the human form, with all its capabilities of thought and action, when touched by the vitalizing power of life. With the knife and the microscope we unfold these various systems; we determine their structure and organization; we go from step to step until we reach protoplasm, the commencement of cell growth, and here we pause. What beyond protoplasm, which gives it life, which gives it its forming power, its power of development into the human form with all its delicate machinery and its capabilities for power and thought, the microscope and all the delicate mechanism of science or subtle combinations and analysis of chemistry have failed to reveal, and we feel that beyond all which we have yet discovered or which we apparently can discover, there is a higher, a finer organization than the nervous organization, so spiritual in its structure that the microscope and the spectroscope cannot evolve it, and yet which flows into the delicately prepared nervous system, the next below it in the fineness of its organization, and through it breathes the spirit of life and development and power into the whole body. The bridge is so fine which links one life with the other, blending them so closely together, that we cannot tell what in our life is the outgrowth of nerve force and nerve development and what the imperceptible influx of a higher spiritual organization, the germ of that eternal life whose future depends upon the harmonious blending of spiritual and material here.

We consider the soul as something distinct from mind. We cannot analyze it, we cannot tell its properties or how it works, and how it links the immensity of spirit life with material combinations. But the mind is something different, and although we cannot tell what it is any more than we can tell what galvanism or electricity is, still we can form a pretty distinct idea of its development and its results. We know, from careful observation, that in mind we are dealing with a force developed from the gray nerve tissue, which exists in minute cells in the brain, the spinal cord and in the ganglions of the great sympathetic nerve. Wherever we find this gray tissue there we find the material in whose unknown working nerve force is generated and mind has its birth. This gray tissue is, of course, the most abundant in the brain, where it forms the great central battery, the great fountain of supply of nerve force and of mental activity. It forms the cortical substance of the brain, covering the whole organ a twelfth of an inch in thickness, and as it follows all of its convolutions it holds the entire mass in its grasp and makes it do its bidding. That bidding is to transmit the nerve force it generates, the mental activity it develops and brings into play, as the electric wire transmits the force generated in the central battery. The white nerve substance of the brain and nervous system, which constitutes the balance of the nerve structure, has nothing to do with the development of nerve force or of thought, which is the sole work of the gray tissues of the brain, but being made up of tubes or fibres, transmits the powers of sensation, motion and thought to the different organs of the body. Wherever, then, we find the white tissue we find the transmitter of life and power and intelligence, and any obstruction in the track shuts off the current of nerve force to that organ, which it was intended to supply. Wherever we find the gray tissue, and we find it, as I have said, not only in the brain but in the spinal cord, and in the ganglions of the great sympathetic nerve, we find it generating nerve force or mind and helping to develop, in con-

nection with the different organs, the heart, the lungs, the liver, the sexual organs, the necessary supply of vitality to keep up their harmonious action. Supposing, then, the nutrition of the nervous system, or any portion, is changed, but changed in such a way that it passes beyond our power of recognition except in its physiological or pathological effects. We cannot see degeneration of tissue or a too rapid metamorphosis but we witness the effects of such morbid processes in movements, in secretion, in nutrition, in emotion and sensation, and we know that some portion of the gray tissue is at fault and failing to do its healthy work. The great central battery may be acting with diminished or intermitting power, or the trouble may be in some of its relays in the ganglions of the great sympathetic, or perhaps some of the fibres of the white tissue may fail in their work of transmission. We can easily see how, out of this condition, may be evolved a semblance of almost every non-inflammatory disease ever developed in the human system, and yet no organic change of tissue, no positive destruction of generating or transmitting power.

I need not speak to physicians of the well known power of mind over matter, of mind over mind, of the domination of a powerful will over others, making them do its bidding, of that magnetic force which harmonizes or disturbs, for every experience is full of illustrations. It has been a question to me if the magnetic influence of the physician, by winning the respect and confidence of the patient, does not often accomplish more in the relief obtained than the drugs administered, and that if the wonders attributed to the faith cure are not more the results of a strong will, with vigorous magnetic power combined, perhaps, with positive obedience and implicit faith, than of any supernatural influence directly imparted from the spirit world. The brain is stimulated into healthy activity and the ganglions waken into new life under the subtle influence of a strong nerve force imparted from a source outside their own organization.

Are results ever obtained in the faith or magnetic cure where there is a positive change of structure, and have we any reason to believe that the wonderful results to which we are often pointed of cures performed by the influence of prayer, are the result of anything more than the play of natural laws, suddenly or unexpectedly brought into action ?

I know that phenomena are often witnessed which are unhesitatingly referred to a change of tissue, but which the subsequent history of the case or a post mortem examination proved to be an error of diagnosis, and that some of these cases yield readily when brought under the influence of prayer. And yet far be it from me to attempt to define the action of those subtle influences which permeate our lives and of which we as yet know so little. A case has recently come under my observation which so illustrates some of the positions that I have taken, that I give it in this connection. The daughter of a distinguished New York druggist, who had always been in good health until she was 28 years old, was taken with rheumatism in the spring of 1876. From this attack she partially recovered, but in about a year's time she stumbled and fell, and on being taken up was found to be insensible. For months she was deaf, dumb and blind, and entirely unable to move. The improvement to full consciousness, with a return of speech was slow but entire, only the inability to move the lower limbs remaining. In this condition she remained for years, the bowels at any time being moved with great difficulty. For four years she was in a hospital, the object of the closest scientific scrutiny and constant medical care, and after that time under the care of noted specialists in nervous diseases. There seemed to be but one conclusion, that she was suffering from spinal trouble, from which she would never recover.

After seven years of this life, during most of the time being unable to walk or stand, her sister was startled, one night, to find her walking in a somnambulic state, with apparent ease and freedom. Waking her while in the act of walking, she went back to her bed in a state of intense excitement. The next day she was able to walk with difficulty, from the long disuse of her limbs, but locomotion rapidly improved until in a month's time she could walk as well as ever. What the pathological condition was during this long period of apparently enforced inaction it would be difficult to say, but is not the sudden resumption of the power of locomotion quite as startling as anything in the records of faith and the instrumentality of prayer ?

Every physician has noticed how much more readily one person responds to remedial agents than another. Napoleon remarked, after one of his violent attacks of sickness, that any other person would have died, and that it was only his strong will which enabled him to triumph over death. The will power in one person is increased or diminished by influences which in another would only have a slight effect. A disturbance in some organ or in some nerve ganglion reacts upon the brain in such a way as to create a feeling of depression and either a complete indifference to life or a longing for death to get rid of its disappointments, its cares, its rebuffs and its sufferings. With such a person, treatment is often difficult, and not unfrequently useless, for the whole will-power is exerted on the wrong side, and constantly pulls with a strong and almost irresistible force downward. A hopeful word, or the presence of some loved

friend, will often be sufficient to turn the scales in favor of life. Not unfrequently the spirit of antagonism bred in our very nature is roused into action, in the presence of danger so great as to make the case hopeless, even to the physician, with such force that the current is changed and life again flows slowly back through the dying form. A friend gives an interesting description of his own recovery from a typhoid when recovery seemed hopeless. To his mind everything seemed to be in a cloud with no connected thought, no care for life and no fear of death. He seemed gliding out noiselessly into that unknown sea of which we know so little, without an effort or a wish to stay his progress. From out of the cloud and the darkness which were settling down upon him he heard faintly the voice of his physician saying, "it is nearly over; he cannot last but a few hours." Some life-giving fibre was touched, and as the spirit cried halt, life for a moment seemed to stand still, but as the wheels started again there came the clearly formed determination to live. The darkness slowly faded away; the eyes brightened, recognized the sad faces around the room, and then closed in a quiet, dreamless sleep. When they opened again the crisis was past and the danger over.

The Rev. Dr. Taylor, for many years the head of the Theological Seminary in New Haven, in discussing the Will, was fond of telling of an amusing experience, when he was pastor of the Centre Church. One of his parishioners had been an invalid for years, and the pastor was frequently sent for to see her in her last moments. Finally she was confined to her bed, and one bitter cold night she sent for her pastor that she might receive the comfort and consolation in her dying moments which it was supposed none but the clergyman could administer. In a faint voice, but with a radiant face, she said, "I can depart in peace now, and oh! so happy, for I feel I am entirely reconciled to the will of God, and if it is His will that I shall go to hell, I can still say, Glory be to God; Thy will be done." The doctor, who was getting a little tired of these visits and her slow process of dying, quietly said, "Well, if that is God's will and both you and your family are reconciled to it, I do not know that I ought to object." In a moment the apparently dying woman was on her feet with her fist under the doctor's nose, and in a voice trembling with passion, shouted, "I won't die, and I won't go to hell!" and she was as good as her word, enjoying comfortable health for years.

Cases innumerable might be noted of the wonderful action of mind upon mind, and of mind upon its physical organization, but there is a limit even to the almost miraculous action. Where there is no organic change of structure, faith and hope, whether the offspring of prayer or produced from any other cause, may quicken into activity and strength the flagging pulse and the wasting strength, but when we reach positive change of structure we reach a domain into which there is yet no proof that the wonderful powers of faith and hope can penetrate, however subtle may be their influence. And yet we know so little of the influences which underlie the process of life that we simply wait patiently for the development of facts, for new light and the evolution of new truths, for we have too often learned in the progress of science, that principles which seemed true yesterday, and fixed as the eternal hills, to-day are shown to have been cloud-land, only to be rolled away and dispelled by clearer thought and more careful investigation.

REMEDIES AND PALLIATIVES IN CHRONIC AFFECTIONS OF THE LOWER PORTION OF THE TRUNK.

By Geo. H. Taylor, M.D., New York.

Morbid phenomena, especially those usually designated chronic disease, are regarded in one of two general ways.

One way of estimating disease is that adopted by the patient and by sympathizing friends, and doubtless influences the physician to a large extent. This estimate is based upon subjective facts—what the patient feels, sees and experiences It includes his consciousness of defect of power and excess of sensibility, and the accompanying exterior manifestations.

Remedies are therefore sought in accordance with these conceptions, and include prominently whatever means may be capable of mitigating, or even abolishing, disagreeable sensations, or at least the consciousness thereof, often with little reference to the source from which those feelings spring.

The invalid, unfortunately for his own true interests, is disinclined to discriminate between the two distinct ideas of suffering and disease. He blends the two as one. This leads to the radical mistake of trying to cure the one by causing suspension of the other. He seems to think that pain is causing him injury, instead of referring it to the morbid action from which the pain is derived. It is not the pain —which is doubtless, on the whole, advantageous— but its causes, which demand correction.

It is, therefore, with difficulty that the invalid learns that while this and other subjective manifestations are undoubted verities, they alone are untrustworthy indications as to remedies, because incomplete indications of disease. The facts of pathology are far more extended, and all, not a part, are required as a basis for any proper remedial prescription. Too close reliance on sensory indications inevitably leads to therapeutic difficulties. These consist in the mistakes of trying to remedy mere effects in place of removing their causes.

Another consequence of undue regard to the subjective indications of disease is the premature arrest of diagnostic inquiry. Further investigation, as the tracing of effects to their causes, is discouraged; the idea of philosophical relationships of seen and unseen facts is repressed, and the advantages to therapeutics of such inquiries become unavailable. The physician is guided by only a limited number of subordinate facts, which, being isolated from their true connection, are untrustworthy.

A still further difficulty, usually indirectly expressed, arising from the above stated sources of misconception, is the tendency in the popular mind to associate, in idea, defects of the vital organism with those of non-vital objects. Diseased manifestations are thought to be like something broken, requiring local repair by trained and dexterous hands. The remedy must accord with the immediate, patent, and obtrusive difficulty, as a broken implement is mended. Medical science is limited to the record of experience in correcting local faults of the organism instead of correlating with science in its wider aspect.

The other mode of estimating chronic disease in reference to remedies, regards its ordinary manifestations as only symptoms, products and evidences of antecedent causes, without which such manifestations would be impossible. It therefore assumes that, however distant and obscure these causes, they are the primary objects of medical interest, and of remedial attention. The actual departure from health is a *process* rather than a *product*. The objective phenomena are a cumulative record of transitional defects and errors. The physician points out and corrects these, and the consequences, however manifested, cease perforce. Nothing exists, not even local disease, after the withdrawal or cessation of the processes whereby it exists.

This is the physiological method. This method regards health and disease as flowing from essentially identical sources, the difference consisting solely in the degrees of perfection attained by the passing activities at the ultimate sources of vital power. Remedies are therefore concerned in the control of processes, rather than obscuring the effects and products of these processes. The processes of physiology embrace the whole career of matter entering the organism, onward to its final exit. During this transit it is subjected to a series of changes and a variety of differentiations in physical quality and form, for the sole ultimate purpose of evolving force or energy. The processes of physiology are minute, involving not merely the tissues of every part, but the ultimate molecules, and constituent elements, beyond the powers of ordinary observation; these may, but often do not, make an impression on the consciousness or sensibilities.

Pathology (which is apt to imply only the effects of disease) is the same career of the same matter, but under conditions less favorable for the attainment of perfected results. The changes due have in some stage of the career been imperfectly attained. In some local part, or by some inferior physical change, the progressing matters have failed to yield energy; and, *therefore*, and coincidentally, failed to attain the chemical form necessary for exit. The product, both of energy and of substance, depends on processes in the respective organic instruments devoted to these purposes. Pathology, therefore, has its potential existence in transitional acts, rather than in the form which the consequences of the imperfection of these acts assume. The distinction should always be made between the effects, consequences and products of imperfect physiological processes, and the processes from which these evidences proceed. It is the former of which we are chiefly cognizant, because more exposed to observation; they are exterior and objective, and often present a cumulative mass. The latter are interior, elusive, and known by comparison and by the reasoning faculties.

These considerations unmistakably imply a wide distinction between the inward, invisible and intangible form of disease, irrespective of the sensations, and the consequences thereof, as exhibited in objective phenomena. The one is continuously contributing, by the changes occurring in successive particles of substance, to produce and maintain the other; the relation of cause and effect being precisely the same as that recognized as resulting in health. Pathology, therefore, exists less in the formed product than in its forming. The impressions of consciousness may or may not exist, according to the nature and location of the imperfect process, and are always to be classed with the objective phenomena, or formed products, so far as relates to therapeutics. It is, therefore, a profound mistake to merge together as an undistinguishable whole two considerations so radically distinct as cause and effect, antecedent and consequent, process and product, in pathology; and such confusion of separate and different things inevitably introduces into practical therapeutics the gravest inconsistencies and mistakes.

The adequate comprehension of disease therefore considers it in the two aspects above presented. These, for convenience, may be styled the antecedent and the resultant *factors*, meaning the defective processes, and the cumulative products.

The susceptibility of the two distinct parts of pathological phenomena to separate consideration arises from the nature of vital processes, of which disease is but a form. These processes are progressive, and never concluded as long as life lasts.

Prophylactics, or the means of prevention of dis-

eases, emphatically recognizes an antecedent principle and antecedent action. The malarial infections, zymotic and incubative affections generally, are confessed demonstrations of the principle stated; and the same is legitimately inferred of acute affections having obscure sources, though no less positive manifestations, but whose processes and products are so blended as regards time, that the distinction has little practical therapeutic value.

The failure to recognize the distinction above pointed out as to antecedent and resultant parts or factors of diseases, opens the way for the perversion of therapeutics from its greater to its lesser uses. Remedies addressed to the resultant, or consequent object, are necessarily only palliative, and in general can have no effect on the contributive factors. The abatement of pain, one of the consequences of the morbid or unperfected process, easily becomes the primary, instead of an incidental purpose. The sufferer is countenanced in his delusion that pain is something synonymous with disease, and that the latter disappears with it. Besides, a practical error of still more serious import is committed. The advantages of pain as a pathological guide are lost. Another and very disadvantageous consequence arises from medicating the sources of sensibility, which should not be the therapeutic purpose. These sensory powers are inevitably perverted by the constant use of remedies adapted to diminish pain, without paying attention to its causes. The source of pain, therefore, is liable ultimately to become a separate antecedent factor, additional to the primary ones.

The relations of the antecedents to the resultants in pathology are necessarily those of equality, because effects must proceed from an adequate and therefore an equal cause; but this fact does not imply interchangeability, but the contrary. The latter always depends on the former, and not the former on the latter. Remove the morbid processes by converting them into healthful processes, that is, into perfected morphological and chemical activities, and the morbid effects, however conspicuous, cease to exist. No radical curative effect is attainable, if therapeutic attention be limited to the resultant factors; such medication may be palliative but is devoid of direct control of antecedent processes. However deftly the consequences be removed, nothing permanent is secured; the continuance of the producing factor is sure to reinstate the morbid result, however concealed, altered, or obscured to the senses.

An intelligent appreciation of the distinctions above made appears to be necessary to prevent medical practice from degenerating, as it is manifestly inclined, into a fruitless routine of palliative procedures. Methods of toying with the senses, and ways of disconnecting imperfect results from the elementary processes on which these results depend—devices, in short, for concealing these results mistakenly regarded as the disease, whether the manifestation be interiorly in the form of pain, or exteriorly in some outward tangible indication, as in the pelvis, or at the hernial border—assume unwarranted importance. The antecedents and the consequents, which are entirely distinct considerations, become inextricably mingled in therapeutics, and remedies adapted to radical cure, in the sense of correcting the primary departure from true physiological action, become impossible.

One of the leading obstacles to the recognition, and therefore the remedying of the primary factors of disease, instead of the resultant factors, cannot be too strongly insisted on, because it imperils and often negatives the value of medical science. This is the avidity with which the lay public avails itself of all newly-discovered modes of postponing and stifling pain, usually by means of lethean dosing. This practice is based on the presumption that the fact of pain is actually diminished by this class of so-called remedies. This is an assumption that is manifestly improbable; but on the other hand, there is much evidence showing that symptoms relating to the seat of consciousness may thus be easily deferred, and possibly their location changed, yet the amount of pain, taking time into consideration, is actually often very greatly increased by the method invoked to stifle it. These statements are necessarily confined in their application to chronic affections; for it is readily conceded that in acute affections nature is at work, repairing defects, and gaining ground by intensifying compensative processes, in spite of the temporary interference of medicaments when these have no relation whatever to reparation.

Deformities of the spine and of the limbs constitute a large class of cases of this kind. These exterior manifestations of mechanical shape are only the symbols of corresponding defects and irregularities of nutrition upon which form ultimately depends. Yet these effects have, from time immemorial, been regarded and treated as though they were primary affections, when, in fact, they are but consequences and secondary. To repress such deformities by mechanical means only, which are capable of reaching no further than the exterior mechanical shape, even were this practicable, is obviously reversing the order of nature and the order by which the deformity appeared. The mechanical appearances are the result and product of corresponding nutritive defects—a difficulty to be corrected only by controlling primary nutritive acts; a principle to which the vital system is as susceptible in disease as in health; in disorder whose product is deformation, as in any other, regarded as purely medical.

In those deformites in which local morbid action,

as well as aberration of form appears, the same facts and reasonings are equally applicable. In angular curvature with vertebral inflammation, and in the joint diseases, the mechanical rectification is scarcely a part of the process of cure, and can never abate the actual morbid process, and must, therefore, be utterly deceptive in its effect. The actual disease consists evidently in defect in the primary nutritive act; oxidation is not sufficiently intense in degree to become eliminative, and its unperfected products are consequently retained. The primary need is demonstrably something very different from the mechanical supports that are so pertinaciously substituted for remedies; these have no power to affect or control the disease in any direct and effective manner, scarcely even to mitigate the exterior form of the product of the disease. To put an end to the production of morbid material is to discontinue the consequences, and should be the primary remedial aim.

The above are mentioned as illustrations of the necessity of distinguishing between causes and results, antecedents and consequents in chronic disease.

It is, however, another and entirely different class of sufferers, who often, it might be said usually, fail to understand properly the sources of their difficulties, and therefore become the subjects of never-ending palliation, when it is far easier to be cured, to which the reader's attention is invited.

This class includes affections of the lower border of the abdomen, indicated by various forms of protrusion through the abdominal wall of some portion of the contents, and known as rupture or hernia

It also includes the far more widespread class of affections of the contents of the pelvis. These affections may be merely mechanical, or they may be functional, or organic, or all these combined. Both sexes and every age are frequent subjects of the maladies included in this general classification.

The forms assumed by these affections are, in children, chiefly prolapse of the bowels through the rectal sphincter; loss of contractile power of the rectum; constipation.

In men, rectal prolapse, constipation, hæmorrhoids of all kinds, ulcerations, fissures, fistulas.

In women, the above mentioned affections, to which are superadded dislocations, prolapse and deformities of the uterus, and of the uterine attachments; also hyperæmia, and the unlimited varieties of its outgrowths, as neuralgia, dysmenorrhœa, tumors, functional troubles of all kinds, and the various progressed conditions of which hyperæmia is the first stage.

As regards the class of affections to be brought under review, the patient of even moderate capacity becomes quite capable of understanding the relation between antecedent and consequent, cause and effect, palliation and cure, because he can *experience* the distinction, he can feel it, and thus knows it.

Not to delay the satisfaction of the reasonable desires of the interested inquirer, a brief summary of the principles to be explained in the following chapters is here given.

The mechanism, and especially the mechanico-physiology of the organism, provide within themselves adequate conditions for maintaining the normal position, and the normal physiological or healthy state, of the contents of the pelvis, and of the adjacent parts It therefore contains adequate means for obviating the diseases which may occur in these parts when these conditions are at fault.

This provision exists in all animals, more perfectly in man, both as a mechanico-physiological fact and as being under the control of intelligence, which renders its power far-reaching and irresistible.

CLINIQUE.

MAGNETO-THERAPEIA.

BY J. A. CARMICHAEL, M.D., NEW YORK.

THIRD ARTICLE.

TABES DORSALIS.

THE next disease to which we invite attention in this connection is "Tabes Dorsalis," or, as it is more modernly called, "Locomotor Ataxia." This last name was suggested by the inability on the part of the patient to direct his movements with precision or regularity. It is not proposed to trace the history of the disease, as it is well known to the profession; but in order to comprehend the curative action of any agent that may be used for its relief, of course it will be necessary to study the pathological condition of those parts of the organism in which it is primarily located, and from which its various phenomena arise.

Through the agency of that inestimable instrument, the microscope, the fact is now well established that the locality of this disease is to be found in certain cell deposits and tracts of the spinal cord, and by that universal law of the organization of the nervous system, continuity, it may extend and ultimately involve other and remote parts, as indicated by the pathognomonic symptoms which they from time to time exhibit. According to some the specific lesion is due to a sclerosis of the posterior columns. Charcot does not consider an extensive disorganization of the cord as essential to the production of the characteristic manifestations of the disease. "In some cases," he says, "the posterior pyramids remain perfectly healthy—in fact, the tracts whose lesions induce ataxic phenomena are two narrow bands of white matter lying, one on each side, between the in-

ner and posterior aspect of the posterior cornua and nerve roots on the one hand, and the posterior pyramid on the other. The affected parts become indurated, gray and translucent, swollen in the early stage, and diminished in bulk at a later period; occasionally the disease invades the lateral columns, and even reaches to the anterior cornua by extension along the internal radicular fasciculi." It would be both interesting and pertinent to add here a few observations upon the ataxic phenomena seen in paralysis of the insane, in which there are not only the usual irregularities of speech and gait, but also, in many instances, epileptiform convulsions, tremors, "delirium of extravagance," conjugate deviation of the eyes, tendon reflex, etc., and in which the autopsic revelations would show sclerosis of the posterior, lateral or antero-lateral columns of the cord, or merely cortical sclerosis, according to the presence or absence of the phenomena above mentioned. The exaggerated tendon reflex is closely connected with great difficulty in speech. The patient hesitates, stammers, stutters, and there is sometimes complete inability to speak, though distinguishable from "aphasia propria."

We must be content with a brief mention of the concurrent symptoms exhibited as a result of the above organic changes in the radical nervous elements of the cord. They generally appear in the following order: The patient perceives an imperfect co-ordination in his powers of motion, frequently accompanied with more or less numbness and tingling of the toes and feet, with a certain clumsiness in his movements, especially when he rises from his seat, or attempts to turn suddenly on his heels, or to go upstairs.

"The very first indication of the disease is sometimes a difficulty in walking in the dark, and with the progress of the malady his movements become more and more tumultuous; his legs jerk here and there, and finally his want of control over the movements of his lower extremities becomes so extreme that it is absolutely impossible for him to make a step or two consecutively, or even to stand." There may also be impairment of cutaneous sensibility of the lower extremities, sometimes extending up and over the abdomen, and sometimes the upper extremities may become involved in the loss of co-ordinate motion and sensation. The viscera, too, become affected with pains, and in the case of the bladder there is frequent desire to micturate, with pain in the urethra and rectum, often with violent tenesmus. Later on, affections of eye and the ear supervene—in the eye, because of invasion of the third and sixth pairs of nerves; there may be internal or external inversion or eversion—strabismus with ptosis—dilatation of the pupil, especially during a paroxysm of pain, extreme contraction of it generally, double vision (diplopia), or dim and obscure, cannot distinguish small objects (amicrotopsia), nor colors (achromatopsia)—distinguishes yellow and blue, but fails to recognize red and green. Complete blindness may result, which, according to Charcot, "is due to gray atrophy of the optic disk, reaching back along the optic tract to the corpora geniculata, and which is identical with organic change already taken place in the columns of the cord." The eye may also become amaurotic. If other nerves should become involved in the disease, viz., the fourth pair, fifth, portio dura and portio mollis of the seventh vagus and hypoglossal, there will be loss of free motion of the globe of the eye, of the muscles of the face, with impairment of sensation, also of hearing, often resulting in complete deafness: paralysis of the glossal, laryngeal and pharyngeal branches of hypoglossal, glosso-pharyngeal and vagus nerves, whereby difficult articulation, deglutition, and vocalization are produced. Later on, retention or incontinence of urine, with equivalent conditions affecting the rectum, spermatorrhœa with erotic emotions, and unnatural virility, to give place, sooner or later to complete loss of sexual desire and power. These, with affections of the joints, in which occur effusion, ending occasionally in erosion of the ends of the bones, with disorganization and dislocation, complicate the destructive tendencies of this formidable disease.

Without stopping to consider, except in a cursory manner, the allopathic treatment of locomotor ataxia, which, besides rest, protection from cold and wet, prudent dieting, early hours, etc., consists in the main of the exhibition of the nitrate of silver, iodide of potassium, iron, opium, belladonna, counter-irritation, friction, hot and cold applications, faradization, etc.; or the treatment according to homœopathic principles, in which the following remedies are included: alum, nux, sulph., calc. carb., china, lachesis, rhus, caust., cocc., phos., phos. acid, pic. ac., sep., sab., etc., etc., let us pass on to observe the effect of continuous currents of magnetism in arresting the progress of the disease. From what we have seen of the morbid changes in the spinal cord, as reported by competent authority, it is evident that from some adequate cause, such as over-exertion, injury, shock, exposure to cold and wet, mental overwork, the depressing effects of anxiety, privation, such affections of the nervous system as run in families and are hereditary, habitual intemperance, sexual excesses, including unnatural and bestial indulgence of depraved passion and unresisted lust, it is evident, we say, that from one or the other of these numerous causes diseased action is initiated in the elementary structure of the spinal cord. May it not be considered as due to the excito-motor or reflex influence of one or the other of these sources of irritation, which, when conveyed to the cord, and continued in its morbific effects upon its elementary

structure, causes the sclerotic or hardening process to begin? This, after passing through various transition periods, ultimately terminates by changing the anatomical organization of the radical material elements that unite to form the substance of the cord, viz., its fundamental cells, nerve-roots, radiating fasciculi, medullary bands, cornua, etc., and if the force of the disease be progressive and destructive in its character, will continue on to complete a thorough morbid transformation, and irrevocable disintegration. We have spoken of transition periods existing during the sclerotic process—may not the "tumultuous" ataxic phenomena witnessed in the earlier stages, and before complete hardening has been effected, be occasioned by the action of the extrinsic irritation along the afferent nerves upon the cells, and onward through their efferent nerves, with the result of producing irregular and fitful motor influences? Hence the absence of muscular co-ordination, the spasmodic, jerking movements, the pains, and other numerous attendant aggravations from which the patient suffers. Why? We venture to declare that it is because the fundamental structure of the cord has been invaded by a disturbing force from without, in consequence of which its material elements have suffered an impairment of their natural powers.

In the disease under consideration, the power which has been impaired is motor in its character, and it follows that those portions of the body, the muscles, which are supplied with it, and by which, in health, the various movements of the body are properly performed, are now agitated and disturbed by the same motor power, because it comes to them fitfully and irregularly, and the result is ataxic inco-ordinate muscular movement, uncontrollable by the patient, and without the dominion of his will. And now we reach the crucial inquiry: What is the nature of the native power that resides in the fundamental structure of the cord? We learn from the experiments of Sir Charles Bell, Marshall Hall, Magendie and others, that the anterior and posterior spinal nerves proceeding from the cord, convey motion and sensation to the body, and upon microscopic tracing of these nerves to their origin, they are found to be intimately associated with the cells and their antennæ or poles, with the medullary and gray matter, with the radical fasciculi, by whose continuity the association with remote parts of the nervous system is maintained, with the cornua—indeed, with all of the material elements residing in the cord, and dispensing thence their subtle powers, and on emerging from it, certain of them are intimately commingled with ganglia from the great sympathetic, by which additional subtlety is bestowed upon them. And now again, what is the nature of the native power that resides in these elementary agencies? By one authority we are told that it is the intrinsic vitality of the cell, that the cell contains a nucleolus of an exquisitely intense vitality, which it imparts; by another, that nerve-force is conveyed by a nervous fluid; by another, that molecular agitation is the moving principle; by another, that a nervous or vibratory aura or atmosphere causes the manifestation of nervous force; by another, that the nervous powers are spiritual—whatever that may mean—in their character, and to go back to remote periods, electricity was supposed to be the agent, and for a long time it was the most generally accepted; then, if the terrible disease under consideration with all its disastrous complications, inflicting, as it often does, great suffering upon the patient, and involving the abolition of some of the faculties of the mind, with impairment of some of the senses, if not their complete destruction, be caused by organic changes taking place in the spinal cord and brain, of whose nature we have spoken at length, and if these organic changes prevent the regular flow of native nerve-force to all parts to which it legitimately belongs, and which it legitimately supplies, then, in default of any satisfactory explanation of the nature of this nerve-force, and with all the theoretical speculations and diversities of opinion which we have enumerated, and which obtain to this hour, may we not dare to venture the declaration that the native power residing in the fundamental structure of the cord, its cells, its fasciculi, its gray and white matter, its cornua, and in all its material elements of organization, and to which it is indebted for its manifestations, is magnetic in its nature, and capable of making those elements in which it dwells the subservient instruments of its mysterious force?

Again the inquiry naturally arises, If the character of nerve-force be magnetic, as we believe it to be, and if magnetism be the propulsive influence by which nerve force is distributed and disseminated through the body of man, as it is known to be the propulsive influence in nature—when that magnetic force shall have been impaired or lost by the contravening impediment or hindrance of disease, any mode, method, contrivance or agency by which its power can be restored and *continuously* maintained must tend to rehabilitate and renew the transmission of nerve-force, and thereby assist in the expulsion of disease.

In "locomotor ataxia" we have had, and still have, indisputable proofs of this regenerating power, and living witnesses to-day thankfully attest it.

RHEUMATISM.

The next and last disease to which we desire to call attention in this connection is rheumatism, and in discussing it we shall endeavor to discover, as nearly as possible, its nature and characteristics, and the

materies morbi which is generated by the disease, and which subsequently serves to maintain and continue it. As respects the predisposing causes of rheumatism, such as exposure to cold and wet, sudden chilling of the body, wearing damp clothes, sleeping in draughts or in damp sheets, etc., it is not proposed to discuss these at length. In a casual way, too, we would make reference to the effects produced by the disease upon the joints, viz., to the effusions that take place into the synovial cavities, which may be serous, milky, flocculent or purulent, changes occurring in the articular cartilages, infiltration of lymph, stiffening of the joint with partial or complete immobility, "false or true anchylosis," etc., also, to the cardiac complications supervening at a later period in the course of the disease, viz., myocarditis, endocarditis with valvular disorganization, pericarditis, and other well-known results.

But the question that is of more interest than any other in connection with our present inquiry, is as to the prime source of rheumatism, and the influence exerted by magnetic currents upon the morbid elements that excite the disease in the first place, and prolong it in the second. If we refer to the expressed opinions of pathologists upon its true cause, we find diversity and discordance. There is no agreement as to its being a local or a constitutional disease; one insists that its proximate cause does not differ from that of pneumonia, bronchitis, nephritis, erysipelas, or other local inflammations; by another, a peculiar action of the blood-vessels, or vaso-motor nerves, is supposed to be the moving principle. The introduction into the blood of some specific poison, such as lactic or other acids, or an excessive quantity of fibrin with the products of tissue degeneration, is cited as the compelling cause of rheumatism; and other various opinions might be added, which would serve to show, not only how pathologists differ in respect to the real nature of the morbid elements entering into the disease, but also how incomplete is the absolute knowledge yet attained upon this subject. Allusion also may be made to certain of the products of the disease as found in the urine, such as an excess of the urates, of urea and extractive matter, crystals of uric acid, deficient chlorides, etc. The copious characteristic and pathognomonic sweat of rheumatism, presents a prominent feature, and demands recognition. Then in view of the fact that there seem to be no fixed opinions upon the true pathogenetic cause or causes of rheumatism, would it not be both legitimate and reasonable to class it among the hematoxic diseases, or those occasioned by the entrance of noxious elements into the blood, which make their morbific impressions upon various parts of the body from time to time, as is so peculiarly the tendency and habit of the disease? If so, what is the nature of the virus that arouses such a disturbing agitation in the system, and how is the blood affected by it?

If a solution of this question can be reached at all, it would seem to be most easily found by taking a case, as was done when discussing paralysis, and noting the disease from its initial attack upon the patient, and on through its various phases and stages. It is not proposed to describe minutely the progressive symptoms as they arise and continue during the attack. Suffice it, that from exposure to one or the other of the causes mentioned the patient becomes the subject of a fever, the nature of which is soon determined by the rapid implication of one or more of the joints and their surroundings; the fever runs high, and by and by the characteristic sweating begins, and accordingly as the blood becomes more and more charged with the rheumatic virus, so does the violence of the fever, with all its well-known accompanying symptoms, continue, and in due time, if not arrested by appropriate treatment, other important and vital parts of the body become, sooner or later, involved in the disease. Why? Because the virus commingled with the blood has invaded the heart, for example, and in due course, by its contaminating influence, pericarditis, myocarditis, endocarditis, involving the valves, has been set up, and the ominous sounds of the *bruit de souffle, de scie, du diable,* or the peculiar *fremissement,* or characteristic rheumatic thrill, convey to the ear of the intelligent physician the knowledge of the rheumatic invasion. In this connection, and as additional evidence of the value of the indications afforded by cardiac sounds and murmurs in pointing to the existence of disease otherwise occult and obscure, may be mentioned the *bruit de rappel* of Bouillaud, expressive of the asynchronous closure of the semilunar valves, because of the absence of the normal ratio of aortic and pulmonary tension, also the *bruit de galop* of Bouillaud, afterwards more minutely studied and described by Potain, and given by the latter as a diagnostic sign of interstitial nephritis, and having for its mechanical cause the exaggerated arterial tension and diminished venous tension observable in cases of the above disease. But the *bruit de galop* should be accepted with hesitation as pathognomonic of this affection of the kidneys solely, since it may occur in other conditions. The same may be said of the "retinitis nephritica," upon whose ophthalmoscopic discovery so much stress has been laid as an infallible sign of nephritic disease. We shall not discuss here the coexistent urinary deposits, albuminous, epithelial, etc., as revealed by the microscope, as it would be foreign to our present purpose. To resume, whence comes the virus which has been instilled into the secret avenues of the circulation? The same ques-

tion may be asked of the morbific elements of gout. We have already spoken of the hereditary transmissibility of rheumatism, and the predisposition to gout is too universally accepted to be questioned. Of this fact, as regards the latter disease, the writer is reminded of a facetious reply made by a gouty subject, who was rather of a spendthrift and prodigal nature, and who, when asked if there had been gout in his family, replied, "Yes, and my gout is the only inheritance, received from my forefathers, that ever stuck to me." Whether the virus of rheumatism be hereditary or not, in the case before us, it is present in the system in a dormant condition, and when aroused and set free by one of the aforementioned causes, it enters into the blood, and by its pernicious influence upon that vital fluid, the many phenomena are developed that constitute rheumatism. Before considering the purifying effects of the intromission of continuous magnetic currents into the body, let us pass in rapid review the remedies employed for the relief and cure of rheumatism by the profession at large. We quote from an eminent allopathic authority in relation to the treatment of rheumatism, and the discrepancy in this will be found as marked as in the various opinions respecting the causation of the disease. He says, "Innumerable remedies have been vaunted for the cure of rheumatism, yet it remains one of the most unmanageable complaints which physicians can be called upon to treat. Some advocate the use of iodide or bromide of potassium in frequent medium doses; some that of nitrate of potash in daily quantities, varying between one and three ounces, largely diluted and taken as a drink; some that of alkalies, and more especially of the bicarb. of potash in doses of from 20 to 30 grains every hour or two. Some recommend colchicum, some veratria, some guiacum, some quinine and some opium in quantities sufficiently large and repeated with sufficient frequency to induce their respective specific action. Dr. Garrod prefers a combination of quinine and bicarbonate of potash in five to thirty grain doses respectively; salicylic acid in hourly doses of from seven to fifteen grains has recently been largely employed, especially in Germany, with reputed great success; others trust mainly to local treatment, simple hot fomentations, or with alkalies and laudanum mixed; counter-irritation with spirit of turpentine, mustard plasters, blisters, packing, vapor, hot air or hot water baths, the bromide of ammonium in doses of from fifteen to twenty grains, repeated every three or four hours, in connection with the alkalies, etc., application with belladonna or aconitin and leeching, with opiates, by subcutaneous injection," etc., etc.

In the homœopathic treatment of rheumatism the remedies in use are numerous, and taking them in alphabetical order, they embrace: acon, ammon. phos., antim. crud., apocyn., andros., arnica, arsen., am. muriat., bell., bryon., calc. carb., cactus, camph., cauloph.,causticum, cham., chin., cimicif., cocc., colchic., collinson., coloc., dulcam., eupat, fluoric acid, gnaph., graph., gelsem, hamam., hyperic., helonias, iod., kreos., kali bichrom., lachesis, ledum, lil. tig., lycop., mangan., menyanth., merc., nux, phos., phytol., plat., pulsat., rhod., rhus, sab., salic. ac., silic., spigelia, sticta., sulph., thuja, tarant., verat. alb. and viride, valer., zincum.

In no disease have the curative effects of continuous magnetic currents been more prominently marked than in rheumatism, acute and chronic. It would be easy to substantiate this statement by incontrovertible evidence and proofs without number, but as that is not the purpose for which this paper is written, we make the simple statement, and pass on to consider the mode by which we believe the magnetic curative principle performs its work. The virulent elements floating in the blood of rheumatism contaminate it and vitiate its magnetic properties. The circulating fluids then, instead of conveying in their currents the elements of healthy nutrition, are now the vehicles by which hurtful materials are disseminated throughout the body. Then ensues that most remarkable phenomenon which no man can satisfactorily explain, viz., the elective affinity of disease. Who can tell why the joints are the special objects of rheumatic invasion? We are told, perhaps, that it is because they are largely constructed of fibrous materials; in the same way might the elective affinity of the glandular structures for cancers, scrofula, etc., meet with the same so-called explanation; but it is no explanation at all, and, in default of any proof to substantiate it, we have the same right, and by analogy, a much greater show of reason, to declare that the morbific elements with which the blood of rheumatism abounds, show their elective tendencies to the joints, because of the interference with the nutrition of the joints by the demagnetization of the blood by the disease, thus rendering the constructive elements composing the joints more liable to be affected by the destructive properties of the rheumatic virus. May not, then, the curative processes whereby the body is, so to speak, purged of the virus of rheumatism by continuous currents, produce their effects by diffusing through the blood the purifying properties of magnetism? The corpuscles which have been demagnetized by disease, an effect now well established, soon undergo remagnetization, and the renewed current not only breaks up the elective association already indicated, but by arousing the cerebro-spinal and ganglionic systems to a more vigorous dissemination of nerve and ganglionic force, and also by supplying the organs with blood, pure and uncontaminated by the disease, their

various functions are set in active operation, a still more copious and healthful secretion goes on continuously from the skin, and the virus of rheumatism is thus gradually neutralized and removed.

We append an extract which is directly in the line of our investigation, and there is much satisfaction in feeling that the scientific mind of the old world, as well as the new, is being more and more awakened to the existence of these magnetic forces, and their vast influence upon the lives and physical welfare of mankind. We quote: "M. Zeigler, of Geneva, has discovered that two magnetic bars of metal joined together in a certain manner produce certain definite results upon animals submitted to experiment, differing according to the angle of the intersection. One of these bars can be replaced by terrestrial magnetism, and it is considered that the latter radiates in the same way as light and heat, and that its rays can be refracted in passing through certain bodies, as crystal and iron. M. Zeigler says that the physiological effects of magnetism can be shown by concentrating its rays through a lens of soft iron on the heart of a rabbit, when circulatory disturbances will occur; violent peristaltic movements are provoked by focussing in the same way the magnetic rays on the intestines; the effect thus produced on the bowels has been noticed by other medical observers, and the discovery will, it is believed, lead to important results in physics, physiology and medicine."

In discussing the diseases selected let us hope that there has been sufficient cogency in our argument to invite the attention of the profession. From the first, the object in view has been to offer a principle of cure which, so far from being inconsistent with the functions of the physician, may be made a most useful adjunct to his general usefulness, and to the natural humanities of his calling.

ELECTROLYSIS IN URETHRAL STRICTURE.

By F. Keller, M.D., Decorah, Iowa.

Three weeks ago, I. Brown, aged 24, married, a laborer by occupation, came to my office, complaining of chronic diarrhœa, stating that he had suffered with it for the last three years. The discharges were quite frequent and watery but painless. Accompanying symptoms were headache, drowsiness, dim vision, loss of appetite, lassitude, pain in small of back.

He said that he had tried about ten doctors without having been relieved, and that but one doctor had been able to check the diarrhœa even for a little while, but that this even had made him a great deal worse in his general sufferings, until the diarrhœa had been re-established by nature. On further inquiry he told me that he also suffered with his urinary organs and that he could pass his urine only with great difficulty and in a very small stream, the size of a No. 1 bougie, and that there was a scalding sensation and altogether an unsatisfied feeling connected with it. My first thought was, that the man suffered from Bright's disease; had no urine at that time that I could have examined, but made a careful investigation of his penis. There was nothing abnormal about the exterior except a flexion of almost a right angle, pointing downwards, 1½ inch below corona glandis. On introducing sounds, could not get below the flexion, consequently I asked the patient about his sins of youth, but he denied everything in that direction. Telling him that he had stricture of the urethra and that such a thing was only produced by inflammation, either from gonorrhœa or injury, and that I would have to operate in order to cure his diarrhœa, he consented. Introducing an insulated electrode (negative) with a No. 8 tip, connected with a McIntosh Galvanic Battery and a sponge-covered positive electrode above the pubes and in charge of the patient, I now put on the current of eight cells. This produced a slight hot sensation but no pain, and by carefully conducting the instrument without any hard pressure could feel it slowly advancing downward and in about ten minutes had passed one inch below the flexion. Disconnecting the battery, I explored further downward with the same instrument and found another obstruction commencing at the membranous portion, and again put on the current and again in a few minutes succeeded getting through a stricture of about one inch and could now introduce any sound into the bladder. There followed the latter operation quite a little hemorrhage, which I checked by introducing carefully a No. 10 steel sound. Before sending my patient home, I made several bougies of sufficient size from slippery elm bark and instructed him to put them in water before using and introduce them quite frequently in order to prevent a reproduction of his trouble. Every few days I introduced steel sounds with advancing numbers in order to dilate the urethra. The result was an immediate and happy one; not another diarrhœic discharge; the flow of urine in full stream, and the latter improvement tickled him so much that he took one of his friends around in a lane in order to show him what he could do now in that direction; his friend had many times been witness to his difficulties and said to him he acted in that respect like a very old man.

On one of his last visits I found out the cause of the stricture. Three and one-half years ago he had fallen into a lime kiln and was struck by a sharp piece of wood across his penis and according to my idea received a laceration of the urethra, besides other slight bruises. The physicians who attended

him at that time might have prevented all that suffering, but overlooked it and perhaps did not care.

After awhile, through the continued failure of a perfect outlet, the kidneys became involved, and nature in order to do the next best thing set up a safety valve by establishing the diarrhœa, and consequently the patient grew worse when the doctor stopped it without curing the cause.

Jahr says in his "40 Years' Practice," that chronic diarrhœa is often cured with remedies, if we can find out the cause, and that is my experience too, but in this case the "covering of symptoms" would never have cured.

ETIOLOGY OF TUBERCULOSIS.—Raymond and Arthaud (*Arch. Gen. de Med.*, Jan. and April, 1883) have given complete confirmation of Koch's experiments by a series of investigations, although they did not use his methods, but those of Pasteur. They found that the tubercle bacillus grows slowly at a temperature of 25°C. (77°F.), but that the most favorable temperature for its development varies between 34° and 38°C. (93.2° and 100.4°F.). Exposure to a heat of 100°C. (212°F.) for an hour deprives the bacillus of all activity. The authors state that every fact which they have observed leads them more and more firmly to believe that Koch's discovery has indeed revealed the true organism of tuberculosis.

STATIC ELECTRICITY AS A PREVENTIVE OF CHOLERA.—In a recent number of the *Progrès Médical*, M. Romain Vigouroux, after speculating at considerable length respecting the preservative influence of ozone, formulates the following conclusion:

According to data generally admitted in regard to the prophylaxis of cholera, static electrization practiced daily is the means of which the efficacy is the most probable. It acts at the same time by producing an antiseptic *par excellence*, ozone, and by stimulating all the functions of the organism, and especially that of nutrition.

THE BROMIDES AS A CAUSE OF INSANITY.—At the last meeting of the American Neurological Association, Dr. Bannister called attention to the maniacal excitement sometimes produced by the use of the bromides. Corroborative instances were mentioned by Drs. Hammond, Jewell, Spitzka and Seguin. Perhaps the best commentary in this paper is the recent suicide of a physician in a condition of frenzy produced by bromidizing himself for the prevention of sea-sickness. The bromides have been greatly abused in the treatment of the neuroses, and it is to be hoped that a severely critical examination of their therapeutic use will be inaugurated by this paper of Dr. Bannister.—*N. E. Med. Monthly.*

THE SIMPLEST AND SAFEST METHOD FOR THE RADICAL CURE OF HEMORRHOIDS.—The *London Medical Record*, May 15, 1883, says that Scarenzio recommends (*Renaiconti del Regie*, 1st lomb., 1882) the elastic ligature in preference to all other and more complicated methods, as being the safest and most effectual for the removal and radical cure of hemorrhoids. Its gradual action allows time for the formation of a firm clot in the veins, and the mass separates after two or three days, leaving a simple cicatrized wound. The pain caused is trifling and only lasts a short time. He has operated often by this method and has never seen any bad effects follow.

CHANGES PRODUCED IN THE TEETH BY SYPHILIS.—Among the phenomena which are noticeable in connection with hereditary syphilis, are certain ones which are referable to the formation of the teeth. 1. They may be late in making their appearance. Demarquay records a case in which a child, four and one-half years of age, had not had any. 2. Certain changes in their structure are observable. Among these may be mentioned erosions, as the so-called nail marks of Hutchinson. These erosions are crescent-shaped, and are located upon the border of the upper central incisors; also microdontism, or dwarfed condition of the teeth; amorphism, in which there are peculiarities in each group—susceptibility to injury which causes them quickly to wear out or to fall out.—*Jahrbuch f. Kinderh.*, B. xx. H. 4.

EFFECT OF ANESTHESIA IN LABOR UPON THE UNBORN CHILD.—If we administer chloroform to a parturient woman, and maintain its influence for one or more hours, her blood becomes saturated with the chloroform gas, a part of which is carried to the maternal side of the placenta, where it is taken up by the fœtal blood and carried to the nerve centres of the child, whose heart soon yields to the influence of the powerful drug, and there is a still-birth, and "Divine Providence" has to shoulder the blame. Will not some one who has investigated this subject tell if my theory is wrong?

I have been led to make these remarks by watching the results in the practice of some physicians of my acquaintance, who always administer chloroform as soon as the second stage of labor begins, and hold the woman in a state of profound anesthesia until the entire labor is completed; and the number of still-births in their practice is simply astounding; while other physicians, who have an equally extensive practice, but never give chloroform except in case of a transverse presentation, or where it is necessary to use forceps, very rarely attend a still-born labor. Now, if the chloroform does not cause this great difference, what does cause it?—DR. H. L. HENDERSON, in *Ec. Med. Jour.*, Jan., 1884.

THE TREATMENT OF SCIATICA BY THE STRONG GALVANIC CURRENT.—In the *Medical Record*, June 7, 1884, Dr. V. P. Gibney shows the success he has had in the treatment of this obstinate disease. His conclusions are:

1. A differential diagnosis should be made between a sciatica depending on a rheumatic diathesis and one of purely idiopathic origin. The former will yield to faradism or static electricity, and will be aggravated by galvanism. The latter will be relieved by galvanism and aggravated by faradism.
2. Daily applications of from ten to fifteen minutes each, care being taken to include the nerve in the current.
3. The Leclanché elements give the best results.
4. If no marked relief be obtained after a half-dozen applications, the diagnosis had better be carefully reviewed.

HOW TO PREPARE A 1 TO 1,000 SOLUTION OF CORROSIVE SUBLIMATE.—In view of the extensive use of this agent as an antiseptic, it will be interesting to note that Sir Joseph Lister writes to the *British Medical Journal* (May 24, 1884), that one drachm by weight of a solution of one part of corrosive sublimate in one and a half parts of glycerine contains two-fifths its weight, or twenty-four grains, of the sublimate. This, multiplied by 1,000 (the proportion of water required), gives 24,000 grains, which is very nearly three pints. It is, however, much more convenient to use fluid measure than weight, and a fluid drachm of the glycerine solution referred to requires four pints of water to produce the 1 to 1,000 solution.

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"*A regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and* OUGHT *to be the* ONLY ACKNOWLEDGED RIGHT *of an individual to the exercise and honors of his profession.*"—Code of Medical Ethics, Amer. Med. Ass., Art. iv., Sec. 1.

Our practice is *not* "based on an exclusive dogma, to the *rejection* of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry."

"CONSISTENCY, THOU ART A JEWEL."

ON our table we find, in a goodly volume, both in size and matter, the "Transactions of the Thirty-Seventh Session of the American Institute of Homœopathy," held at Deer Park, in June, 1884, edited by the General Secretary, J. C. Burgher, M.D The address of the President is scholarly and full of excellent suggestions, but he evidently holds himself well in hand for the closing burst of mingled eloquence and pathos, terminating, as only such eloquence could terminate, in the sublime strains of poetry.

A proposition had been made at a previous meeting to change the name of the American Institute of Homœopathy to the American Institute of Medicine. "For one," says the President, "I protest, and would cast my vote against it. Since Hahnemann inscribed it on our banner, has not that name been our rallying signal all through the conflict? Shall we forget that it has been the target of jeer, and scorn, and hate; that it has been charged upon again and again with the heaviest battalions, and at times been almost lost in the smoke and din of battle? And now that the struggle is over, the hostile lines withdrawn, the din ceased, the smoke cleared away, and just as the name, lustrous with victory, is gathering upon it the eyes, the hopes of the world, shall we, dare we, of our own hand, blot it out? Let never my hand be chargeable with such a sacrifice! The name is too dear, too sacred, too hallowed by the sacrifices of the living and the memories of the dead. Never, I say, till our assailants disarm and their own hands bear the white flag of peace; never till they cease to dishonor and revile us; never till scorn is banished from their lips and hate from their hearts; never till we shall be everywhere recognized as of a common brotherhood. Till then, let us rally around our old standard and in reverent fealty shout in glad refrain:

"'Our hearts, our hopes are all with thee,
Our hearts, our hopes, our prayers, our tears,
Our faith triumphant o'er our fears,
Are all with thee, are all with thee.'"

We can imagine the breathless silence which followed the majestic periods and grand climax of this stirring appeal, and the wild enthusiasm which shook the hall as the members, with flashing eyes, lifted their clenched hands toward heaven and swore never to desert the old flag. In eloquence and pathos we know of nothing in the English language comparable with this appeal—except, perhaps, the scene in David Copperfield where Mr. Micawber is about to leave his native land, and Mrs. Micawber, with the tears raining down her cheeks, and her arms thrown about her husband's neck, declares, by all the hallowed memories of the past, of love sweetening life's struggles, of children born to them and by the hope of children yet to bless their arms, that she "never, never will desert Mr. Micawber!"

In sober earnest, what is the cause of this tremendous protest, of this stern determination to die in the harness and to never pull down the old flag? Who has talked of pulling down the flag or of giving up one principle established in truth? Certainly not the proposer of the amendment to the constitution, to give a non-sectarian name to a great national medical society. One has only to look over the volume containing the Transactions of the Society at the very meeting which called forth the eloquence of the President, to be convinced of the appropriateness of the change. Nine-tenths of the articles in this volume, most of them discussing with marked ability great scientific questions and principles, have no distinct reference to homœopathy, and might just as well have been read before an old school or an eclectic association as one bearing a homœopathic name. In fact, there is scarcely anything in the book, so far as the papers are concerned, which would mark this volume as the transactions of a homœopathic society. This

morbid sensitiveness, this disposition to throw out, on every occasion, the porcupine quills of defence, shows, it seems to us, a lack of confidence in the strength of the principles advocated and a lack of honesty in adhering to a name for a national society which represents, as is clearly shown by this volume, only a fraction of its work. We still think the proposed change of name would add to the honesty and dignity of the society, and would enable it to perform a larger and more satisfactory work. The homœopathic name could be wisely used at the head of a department or bureau of therapeutics, in which its distinctive work could be carried on, while the general name would cover the working in every department and in every field of a great scientific society.

OLD CODE TACTICS.

THE spirit of the old codists is fully illustrated in their recent attack upon Dr. Benjamin Fordyce Barker, one of the most prominent and esteemed physicians in the country, now President of the New York Academy of Medicine. Charges of the gravest character were preferred against Dr. Barker, the President of the Academy, by Drs. Edward S. F. Arnold, Austin Flint, Jr., Nathan Bozeman, S. S. Purple, C. S. Wood, and William Young. They accused Dr. Barker of perjury in subscribing in the signature book of the Academy to the statement that he was a graduate in medicine of Paris, of the date of 1844, while he was not at that time and had not been at any subsequent time a graduate, and also of violating the laws of the State in practising medicine without a diploma.

When the report of the Committee to whom it had been referred was called for, an effort was made to exclude reporters, close the doors, and act in a star chamber manner. A prompt negative was given to these tactics, it being shown that the accusers had already given wide publicity to the charges, and that the defense should be equally public.

Dr. Smith's reading of the report of the Committee on Ethics was punctuated with applause at every place favorable to the Academy's chief officer and it showed increased fervor each time. The report took up the charges and specifications in detail and found the sole evidence against the claim of Dr. Barker to a Paris diploma rested on the fact that the proper Paris records were silent on the subject. It declared that the statement in the signature book of the Academy of 1854 was evidently written in, and called attention to the fact that Dr. Barker applied for fellowship in the Academy as a graduate of Bowdoin College. The report then presented Dr. Barker's explanation of how he obtained the Paris diploma. In brief, it showed that he had studied at the Ecole de Médecine in 1845, was called home by illness in his family before receiving a diploma, visited Paris in 1861, and through a conversation at a dinner with Professor Trousseau, of Paris, and the Minister of Public Instruction, learned that the school had issued him a diploma, which he received a few days afterward from M. Trousseau.

Dr. Barker was unable to produce his diploma, as he lost it among others when he removed from his home in Union place to Madison avenue in 1862.

In corroboration of this statement, the committee's report continued, Dr. Barker produced letters from Dr. Edwin H. Davis and Professor R. Ogden Doremus, who were present, among others, at the gathering of friends who greeted Dr. Barker upon his return from Paris in 1861 and to whom he showed the diploma of the Ecole de Médecine. The reading of these letters, which were dated last November, and which recalled the occasion by a dozen incidents and features, set all the physicians to clapping their hands vigorously. In conclusion, the committee reported that they could not offset the testimony of Dr. Barker and these two other witnesses with the defectiveness of public records, and they accordingly found the charges not sustained.

It was so evident that in the work of obtaining evidence on the part of the accusers there had been foul play, that Dr. Joseph W. Howe moved to appoint a special committee, with power to hire an expert in handwriting, to ascertain by what means the records of the Academy had been tampered with, as shown by the committee.

Dr. John C. Peters then moved a vote of censure on the Fellows who had made the charges, for not having followed the usual rules of the State Medical Society and consulted Dr. Barker concerning them.

Dr. D. B. St. John Roosa—I move as an amendment that we ask for the resignation of these gentlemen. They have assumed that the President of this Academy has lived a lie, and have assumed it without investigation. If a little investigation had been made we could have disposed of these charges in twenty minutes. The insufficiency of the Code of

Ethics of which we have heard so much as not having been well administered, touches more than anybody else the gentlemen who made these charges. They have made these charges without any circumspection, without any kindness of spirit, without any love for one's fellow—in a word, without any of those kindly sentiments which should actuate one gentleman in his dealings with another. In these circumstances the least we can do is to call upon these gentlemen to resign—a resolution which I now offer in the form of an amendment to the resolution of Dr. Peters.

Dr. W. G. Wylie—I don't think it would be fair that all of them should be called upon to resign—except him who appears to have been the leading spirit. [Cries of "No, no," and a voice—"They're all Code men."] Some of them may have signed the paper innocently, without knowing the significance of their action.

Dr. Abraham Jacobi—Everybody has the right to be mistaken without being visited by the severe punishment which expulsion would imply. I am just as willing to believe that the accusers have made mistakes in bringing these charges, as I am to assume that every one of them knew what he was about. Although mistaken, however, I believe they deserve censure, but not expulsion. I don't believe in any question, brought before this Academy of Medicine that the Code question should come up again. This was resolved last year. I hope the question of New Code or Old Code will not again be discussed in this Academy or even in the State of New York, and I am sure Dr. Barker is of the same opinion.

Dr. Roosa—It is not the question of the New Code or Old Code. It is the discourtesy of not having first asked Dr. Barker about the matter. I am therefore in favor of expulsion.

Dr. M. G. Henry—There has not been one scintilla of evidence that could for a moment justify any honorable man in making such charges. The Committee on Ethics have not heard either from the leader, the giant of these outrages, or the babies who signed the paper, a tittle of evidence to justify the charges. I say this in the light of twenty-seven years of experience. Are any of the gentlemen who signed the charges here? Well, I can only say they deserve expulsion and there is not a club or an association of gentlemen in any part of the world that would not expel them without another word being said on the subject. These rumors, these slanders, have been noised abroad since last January by the leaders of these slanders. More infamous slanders I never heard in my life—a statement which I shall sustain either here or elsewhere. Efforts—now happily frustrated—have been made to poison every member of the profession against one of the most honorable, and justly honored, men whom it has ever been the good fortune of any of us to have met. You cannot tell me that Austin Flint, Jr., who writes up all his friends in Paris—

Dr. H. F. White—I call the gentleman to order.

Dr. Henry—This matter is too serious, sir, to be interrupted by any such nonsense. You cannot tell me that these gentlemen who signed the charges didn't know what they were about.

Professor J. C. Dalton moved that the whole question of further discussion of the matter be laid on the table. Not alone were they satisfied, but he believed Dr. Barker was too, with the splendid report of the committee. The motion was passed, and then Dr. Barker said :

It was not my intention to take any part, but sit calmly and quietly throughout the whole of these proceedings. I now beg to say that I most warmly and heartily approve the sentiments of Professor Dalton. I think the Academy has done all that it is wise and proper for them to do. I think it would be injurious to their reputation to do anything under the impulse of excitement, or which might not be regarded as judicious. I am, therefore, in thorough accord with the suggestion that all further discussion of the matter lie on the table. I am satisfied myself and consequently think others ought likewise to be. The Academy now resumes the scientific work which it was engaged in before this present storm was raised, to elevate the character of the medical profession.

After Dr. Barker's address there were brief routine proceedings and then an adjournment was taken. This was the signal for the members to gather round the President and shower congratulations upon him before they dispersed for their homes.

Many years ago, at the time of the great fire, large quantities of saltpetre were stored in some of the buildings consumed, and the question which agitated not only the scientific but the public mind for a long time, was—"will saltpetre explode"? It took years to settle the question—in fact, it is hardly settled yet. A still more important question now agitates the public mind : "Is crow easy of digestion, and can it be considered a healthy diet"? In view of the enormous quantity which has been eaten recently, it is fortunate for the speedy solution of the question that the oldest and toughest brace of crow has been consumed without ever any "Old Crow" (whiskey) to wash it down, by a distinguished professor of physiology, and a few of his chosen friends. We sincerely hope that the distinguished professor of physiology, Dr. Austin Flint, Jr., will postpone acting upon the affectionate advice recently given by the New York *Tribune*, to try and accomplish the hitherto impossible feat of crawling into a hole and pulling the hole in after him, until he has definitely settled upon a thoroughly scientific and physiological basis, from data furnished by his own stomach and those of his immediate friends, the all-important question, "Is crow easy of digestion, and can it be considered a healthy food?"

RESPONSIBILITY FOR EPIDEMICS.

Of the seventy-five cases of diphtheria reported to the Board of Health in this city, in a given time, forty-three died, but this gives no idea of the real comparative mortality, because so few physicians report such cases until frightened into it by the impending death of the patient. The first duty of

every physician, especially at this season, is to acquaint the heads of families of which he is the adviser as to the nature and danger of sewer gas, and point out the way in which it can be avoided. It is at least unfortunate if this has been omitted until the patient is already ill with an incurable diphtheria. While it cannot be asserted that all cases of diphtheria depend upon the presence of sewer gas, when not personally communicated, the writer has never seen a case in which sewer gas could not be detected in the surroundings.

Many curious instances could be detailed in which the obscurity of the sewer gas was ferreted out, and we have no doubt that most observing physicians have met with similar experiences. Much depends upon the profession as to whether we have an extensive epidemic of diphtheria this winter—and we might even truthfully say that the family medical adviser is at fault if it exist at all.

It is the duty of every practitioner to warn those who look to him in matters of health, to see to it that the plumbing in their apartments is in a condition of safety to health, and if not, direct them as to the proper course.*

The statute clothes the Board of Health with authority sufficient for any emergency, and the delinquent landlord cannot resist its edicts, as has been recently demonstrated in the Lalor case.

We remember one case in which an inefficient officer of this Board examined premises where a patient had just died of diphtheria, and while the plumbing was rather ancient and without the necessary trap ventilation, he pronounced it safe, as it was similar to that in his own house. Not being satisfied with such a decision and being authorized by the owner to "leave no stone unturned" to find the cause, we directed an expert sanitary engineer to make careful examination, and he discovered a leakage of gas from a waste pipe in an obscure locality, but which communicated directly with the sleeping apartment of the deceased. This defect was remedied and for now two years there has been no indication of relapse.

The trap ventilations, which are now insisted upon in all new plumbing, apparently answers the purpose perfectly, and it is a great question whether all plumbing should not be changed under compulsion to comply with this regulation as to new work, and we are confident that if people understood how easily and at what slight expense a great risk could be avoided, they would not hesitate in having it done. The duty of every physician is, therefore, to understand the subject in all its bearings, and communicate the facts to those who look to them for guidance in such matters.

The medical men attending the recent National Sanitary Conference in Washington remained over with a view to influencing Congressmen as to the importance of passing the bill which the Conference had agreed upon, and which lessens the responsibility for epidemics.

The original bill, as presented to the Conference, an analysis of which received general circulation through the press, contained in its second section a provision which authorized the President, if a State authority should neglect to enforce regulations as to the public health, to appoint proper persons to enforce them, to act under the direction of the Board. This provision was regarded by the constitutional lawyers as a defiance of the States, and it was stricken out.

It is confidently hoped that some bill will be passed which will meet the requirements, and that a liberal appropriation will be made to prevent the ravages of cholera, otherwise a great responsibility will rest somewhere.

THE COUNTY MEDICAL SOCIETY.

THE Medical Society of the County of New York (organized 1806), after having held its meetings for many years in the College of Physicians and Surgeons' building, is compelled, in consequence of the change in location of the college, to seek new quarters. The membership of this old society—nearly one thousand—ought to afford the most comfortable and convenient rooms for meeting purposes and also a place where the social element could be cultivated, so that the Fellows could become better acquainted with each other. Perhaps it would be feasible to have a library and reading-rooms, and it seems to us that quarters somewhat similar to those of the Lotos Club and others of its kind would be most agreeable. This would afford excellent opportunity for many purposes, such as the entertainment of guests, and if properly managed it would soon be the home of the medical men who compose its fellowship.

* The efficient apparatus of the Germicide Company provides an additional safeguard.

We hope the *Comitia Minora* will look into this proposition and submit some plan to the Fellows for their consideration. We also believe that something of this kind would promote the interests of the Society, by adding largely to its membership. Should it be found necessary, a special act of legislation could be easily obtained which would enable the Society to hold real and personal estate to any extent within its power. The Society, with such a nucleus as it already has, could easily establish a home for itself which would not only reflect credit but be an honor to the profession.

There are doubtless many physicians qualified in every particular for affiliation, not now members, who would be only too glad to join the Society, should they be informed that such an enterprise was contemplated.

It is well known that the movement which resulted in the overthrow of the Old Code of Ethics, had its commencement here, and the ground has been held in spite of everything. The position which the association has taken in respect to ethics, and in regard to membership, is not only progressive, but in accordance with the most advanced ideas of liberty of opinion and action.

Its members are bound to no dogma or creed, but are free to think and act in accordance with their own consciences and are protected in so doing. They are not "paths," but only physicians!

They are supposed to "accept the results of experience," and to decline any designation which could make them appear as sectarian. The Society claims to stand upon a broad catholic platform, which all but bigots can occupy. It takes that middle ground upon which the great majority meet. All qualified physicians in good standing in the community are required by law to apply for membership in a county society, and it is the duty of the President, made so by statute, to personally invite such affiliation.

BIBLIOGRAPHICAL.

A Manual of Bandaging Adapted for Self-Instruction. By C. Henri Leonard, A.M., M.D., Professor of the Medical and Surgical Diseases of Women and Clinical Gynæcology, Michigan College of Medicine, etc., etc. With one hundred and thirty-nine engravings. Second Edition, Revised and Enlarged. The Illustrated Medical Journal Company, Detroit. Postpaid, $1.50.

This most useful little work, as will be observed, has been honored with a second edition, and we think justly. The first three chapters are devoted to cataplasmata, charpie and cotton wool, and compresses, the balance elaborately describes every kind of a bandage. There is also a full description of Sayre's "spinal apparatus." Our readers will not regret its purchase.

Cruising and Blockading. A Naval Story of the late War. By W. H. Winslow, M.D. Ph.,D. Published by J. R. Weldon & Co., Pittsburg, Pa.

An interesting and amusing book commencing with a lad's appointment to the Naval Academy and tracing in a sort of diary his varied career from midshipman to lieutenant. A good description of the Naval Academy before the war is given; of Philadelphia in war times; of fights with blockade runners; of forts attacked, and many other graphic war scenes, such as captures of prizes, raids and expeditions.

A Theoretical and Practical Treatise on the Hemorrhoidal Disease, Its Nature, Causes, Pathology, Diagnosis and Treatment. By William Bodenheimer, M.D., New York: William Wood & Co. 1884.

Dr. Bodenheimer brings to his task an experience gathered from a life-long devotion to a specialty in which he has long been looked upon as a leading authority. The treatise will be found to be a complete encyclopædia upon the subject treated in which the causes, pathology, general and specific treatment, are set forth with great clearness and good judgment.

A Hand Book of the Diseases of the Eye and their Treatment. By Henry R. Swanzy, A.M., M.B., F.R.C.S.I. With illustrations. New York: D. Appleton & Co.

This hand book is chiefly intended for students attending an ophthalmic hospital, but the clearness and order of its statements and the practical and scientific information which it gives in the discussion of the various subjects which come under review will make it a valuable addition to the library as an after book of reference.

F. E. Boericke, of the Hahnemann Publishing House, Philadelphia, announces as nearly ready for publication a new work on the Practice of Medicine, based upon the homœopathic law of cure, edited by Dr. H. R. Arndt, assisted by a large number of prominent physicians of the homœopathic school. The publisher states the object in view is to present to the profession a work on Practice, which will embody not only sound homœopathic therapeutics, but also reliable and extensive chapters on Ætiology, Pathology, etc., and will discuss in a practical way the various means of physical diagnosis, auxiliary measures in the treatment of the sick, preventive medicine, etc. The work will be published in three volumes, the first—containing 900 pages—appearing about the first of March, and the others following in rapid succession. The first volume after the general introduction will contain chapters on Physical Diagnosis, Diseases of the Respiratory Organs, and of the Organs of Circulation and Digestion, the matter being furnished by Drs. H. R. Arndt, H. C. Clapp, Lucius D. Morse, J. S. Mitchell, A. R. Crawford, E. M. Hale, A. R. Thomas, W. T. Laird, C. M. Conant, A. C. Cowperthwait, J. G. Gilchrist, E. U. Jones and W. H. Dickinson.

The second volume will contain Diseases of the Blood and Glandular System, of the Urinary Organs, the Genital and Reproductive Organs, the Nervous System, Organs of Locomotion, and Diseases of the Eye and Ear. The third volume will treat of Constitutional Diseases. We are confident, from the reputation of the Hahnemann Publishing House for elegant work, and the well known ability of the editor and his associates, that the publication, both in matter and appearance, will be a valuable addition to the libraries of physicians of all schools.

HOLDEN'S ANATOMY. A Manual of Dissection of the Human Body. By Luther Holden, late President of the Royal College of Surgeons of England; Consulting Surgeon to St. Bartholomew's and the Foundling Hospitals. Fifth Edition. Edited by John Langton, Surgeon to, and Lecturer on Anatomy at, St. Bartholomew's Hospital; Member of the Board of Examiners, Royal College of Surgeons of England. With over two hundred illustrations. Philadephia: P. Blakiston, Son & Co. 1885. Pp. 886.

A work of this character, which has reached its fifth edition, seems to be beyond the pen of any reviewer, because it is so well and favorably known. We need only say that the text in this edition has been most carefully revised by the editor and additional matter introduced.

The object is apparent throughout to make the work as concise as possible and present the subject in as clear and practical a light as is compatible with the faithful handling of its natural difficulties. The text, the subdivisions, the plates, and last, but not least, the type, all vie with each other to make the book all that can be expected.

In its present form the work is adapted not only to students, but to all who wish to refresh their anatomical knowledge.

THE SCIENCE AND ART OF SURGERY. By John Eric Erichsen, F.R.S., LL.D., F.R.C.S. Eighth Edition. Revised and Edited by Marcus Beck, F.R.C.S. Henry C. Lea's Son & Co. Philadelphia.

It has been truly said that a teacher of surgery who seeks to give a true and impartial view of his subject is placed in much the same position as the judge who is summing up a great cause. He must free himself from the trammels of the schools, and from the partisanship of individual bias, and the prejudice of professional antagonism. The general principles of the case must be clearly laid down; its facts detailed in an orderly manner, that deductions may be logically drawn therefrom.

It is more than a quarter of a century since Dr. Erichsen published this work, during which period it has been used in England and America.

It will now appear greatly enlarged, with new operations in improved modern surgery, simultaneously in editions in America, England, Italy and Spain.

Not only has he given a clear and full detail of Symptoms, Pathology, Diagnosis and Treatment, but the great importance of Surgical Hygiene, general and local, has been enlarged upon in the treatment of wounds and septic diseases.

All this demands a vast general medical knowledge, and this we find evidences of throughout this work.

In fact, the student and surgeon will find the favorite text book of a quarter of a century in the careful revision of the present edition fully up to the present standard of surgery.

IODOFORM APPLICATIONS IN ERYSIPELAS.—In the *Practitioner*, for May, 1884, is a communication from Dr. C. Clark Burmann, in which the topical application of iodoform in collodion (one to ten) in facial erysipelas is praised very highly. Four cases are reported in which the good effects of painting the affected surface and a little beyond with the iodoform were remarkably manifested. The relief to the pain and burning were almost immediate, and the inflammation in the affected area rapidly subsided: in short, the application is cooling, relieves pain, and apparently rapidly arrests the disease. The disadvantages of temporary disfigurement, and of the odor, are very slight in comparison with its good effects. Tincture of iron was given internally in three of the cases, but in the fourth no internal treatment was tried beyond a dose of sulphate of magnesia, yet by the next day after the use of the iodoform the erysipelas had subsided.

CORRESPONDENCE.

MEDICAL EDUCATION.

To the Editors of the N. Y. Medical Times:

THE question of reform in medical education has been recently discussed in Pennsylvania. We have before us a paper on the above subject, read before the Philadelphia County Medical Society, September 24, 1884, by Dr. Henry Leffmann. Appended to this paper are the discussions elicited by its reading, and they are valuable as giving us the opinions of some of the first medical men of Philadelphia on this important issue.

Dr. Leffmann presents the topic under four heads: *first*, the preliminary examination; *second*, the course of study; *third*, the method of graduation; and *fourth*, the ethical relations.

He argues for a limited preliminary examination; he would exclude the classics, except possibly the merest outlines of Latin grammar; of mathematics, only an elementary knowledge of algebra and geometry. He excludes botany, logic, drawing, Greek, and political economy. He suggests that the full college course should include a recognition of each specialty and offer the option of pursuing the study of one or more of them, not as side studies or post-graduate courses under junior teachers, but as part of the requirements of graduation. He suggests further special degrees for these specialties.

He advises a regular course on medical jurisprudence, and the conferring of a title of Doctor of Medical Jurisprudence. He is in favor of transferring the work of examination to a State Board of Medical Examiners. This State Board should accept any one who could bring certificates of good moral character, proper age, sufficient preliminary training, and three years of study under instructors recognized by the Board, these boards to be composed of members of the so-called regular profession. In this way the teaching body will be relieved of all final examinations.

On the ethical question the author takes a broad view, contending with Dr. Gihon that a "medical education is the true standard of medical ethics."

In the discussion which followed, Dr. Oscar H. Allis contended for a proper preliminary course and favored the classics and mathematics as offering the best preliminary training.

Dr. Wm. Pepper's remarks are so good that we quote them *in extenso:*

* * * * And first, as to preliminary examination: I think it is a great thing to have one, and even though it be not adequate nor properly enforced, still the mere statement that there will be an examination deters lazy and badly prepared students from even applying; and if a mere shadow of one be thus useful, we may imagine how valuable uniform and properly enforced examinations will be. Unfortunately, there are but few colleges that exact them, and it is a question for the profession at large to decide whether all colleges shall or shall not establish this essential requisite of good education.

"So long as students are sent to colleges which have no such preliminary examination, and which have a comparatively low standard of requirements, so long will such colleges continue in their course. In regard to the character of the preliminary examinations, I consider a good knowledge of mathematics and of physics, together with the elements of a good English education, of much more consequence than the classics, and I would willingly accept proficiency in modern English as a substitute for the latter.

"With the lecturer's views on special courses I must disagree, unless the period of medical education is made longer than in any of our colleges to-day. I do not believe in differentiation of medical studies at an early period. It is true that modern practice leads to more and more specialization, but unless we insist that the specialist shall have the broadest general education, his value as a specialist is greatly endangered, and I cannot help feeling that if students were to be encouraged at an early period of their course, as being engaged for fitting themselves for this or that specialty, the tendency to concentrate their attention upon it to the serious neglect of the necessary elementary branches would be insuperable. Equally strenuously must I object to any increase in the number of degrees. Already the variety of degrees bestowed by American colleges is ridiculous, and if we were to enter upon the practice of giving different special degrees for attainments in different specialties, no one could foretell the chaos of titles which would result. The truly reliable specialist readily becomes sufficiently distinguished in the esteem and confidence of the community.

"I cordially agree with Dr. Leffmann with reference to a State Board of Examiners, but until that becomes possible, our final examination should be made more practical. The candidate for graduation should be compelled to show his knowledge in actual diagnosis and the direction of treatment, and it will be easy to invite several disinterested physicians to attend such examinations, which would thus acquire almost the success of those conducted by a State Board. In colleges where a suitable preliminary examination is held, the thesis seems to me to no longer possess much value, and I would suggest substituting for it the preparation in each term of one or more clinical records by every student, which would certainly serve not only as a test of literary qualifications, but as evidence of their close attention to practical teaching. I would further offer prizes of special grade of merit for voluntary theses, based upon original investigations.

"With reference to the time of beginning clinical studies: I realize the difficulty of lecturing to an audience a considerable portion of which is still ignorant of the very rudiments; still I do not believe that the few hours weekly spent in the clinical amphitheatre by first-year students are lost. There is a dramatic element in the instruction thus given which is important, and the whole constitutes a portion of the necessary training of the special senses and faculty of observation. There is, however, a kind of practical instruction which is really clinical, which should begin at the very outset of the student's course, and for which I am happy to say provision has now been made in the University of Pennsylvania. I refer to the demonstration before small sections, with careful training of each individual student in the perception of the normal physical signs. This will afford most valuable training for the first-year students, while it will enable the student in his last year to receive true clinical teaching in the wards, instead of being compelled, as is now too often the case, to spend his last year in elementary practical work, which could be mastered by the veriest tyro."

Dr. Chas. K. Mills condemns separate degrees for the specialties, but favors more specialized instruction and examination, and while endorsing a full and regular course in medical jurisprudence, denies that this will in itself make medico-legal experts. Specialists of ripe experience alone become the true experts in their special departments.

Dr. John B. Roberts recognizes the importance of a preliminary examination, but thinks it unnecessary if the colleges adopt a high-grade final examination, this examination being partially written. He admits the necessity of a non-teaching State Board, which shall examine all candidates who intend practicing in the State; let the colleges teach and grant degrees, but let the examining State Board alone grant the license to practice.

Dr. Benjamin Lee brought forward testimony to show the great value of a classical education as a preliminary training to the study of medicine, as shown in Germany in the last decade, and especially at the University of Berlin.

The whole discussion showed a general recognition of the value of a State Board of Examiners, of a three years' course of study, and of some entrance examination.

There are several points in this paper which we cannot endorse. And, first, we cannot admit that the examination of the State Board does away with the faculty examination. They are both essential, and equally important. The college that grants a degree and a diploma should only grant it on the strength of a satisfactory examination. The diploma testifies, or should testify, to a faithful course of study and a satisfactory final examination. That is what the diploma means. Let it then admit the applicants to the State Board who grant the license to practice when the Board's examination is satisfactorily passed.

And second, we cannot endorse the suggestion to introduce into the regular college course the various specialties and require the student to perfect himself in one or more of them before he can be graduated. Such a system would not only be impracticable but absolutely pernicious. The specialist should first be the general practitioner. Time alone and general practice will show him the specialty his talents and inclinations best adapt him to. The general course is already too extensive to introduce much special study, at least within the space of three or four years. We object as strongly to the introduction of distinctive titles indicating the different specialties; they are not only useless, but encourage a practice already too common in America.

And third, we must plead for a better preliminary training and a more thorough entrance examination than indicated in the pages before us. The requirements of Harvard are certainly not too much, and when the applicant is backed by a good collegiate course, so much the better. It is better for the profession, better for the public, and better for the young men that inferior ability and poor education should seek work in other channels.

And a good word here as to the methods of conducting an examination. Dr. Pepper's suggestion of examining students at the bedside to show their knowledge of pathology and diagnosis, and their ability to detect the physical signs, is an admirable one and should be followed. All other examinations should be written. They possess many advantages. In the oral examination many are so nervous and excitable that they cannot do themselves justice. This is obviated by the written examination. And further than this, the student's general education is best shown in a written paper; it betrays his deficiencies, or enables him to show his knowledge to the best advantage.

This journal has long contended for the establishment of a State Board of Medical Examiners. When the question was first agitated in New York we showed the benefits to follow such a system. It counteracted many of the irregularities and defects in the final examinations of the colleges; it did away in part with the "cramming" system; it made the practicing physician a State officer; it destroyed the dangerous tendency among many, if not all, of our colleges to pass incompetent men at the final examination simply to swell the ranks of their graduates or to add to their exchequers; it encouraged an "upward competition" among the colleges to send the best prepared candidates to the State boards.

Besides these many apparent advantages, it is an important part of the best educational systems of Europe, where it has been in successful operation for many years.

The tendency, to day, is to place the public health more and more under State control. Sanitarians and legislators are working every day to this end.

A State's prosperity depends largely upon the health and vigor of its citizens, and what more natural outcome than that the State should see to it that its medical men are competent? The State Board will accomplish this; it will be in large part a guarantee from the State that its medical officers are competent men.

For the perfection of the details of this system much time will, no doubt, be required, but this is the history of all innovations. Let the beginning be made and its perfection in time will be assured. Towards a better system of education much has already been accomplished.

The Illinois State Board of Health adopted the following as the minimum requirements to constitute a college in good standing, and the Nebraska State Medical Society has adopted them as conditions of eligibility to membership.

Conditions of admission.—Credible certificates of good moral character. Diplomas of literary, college or preliminary examination in English, mathematics, and elementary physics.

Branches to be taught.—Anatomy, Physiology, Chemistry, Materia Medica and Therapeutics, Theory and Practice of Medicine, Pathology, Surgery, Obstetrics and Gynæcology, Hygiene, Medical Jurisprudence.

Length of Courses of Lectures.—Two of not less than twenty weeks, and not more than one course in the same year.

Attendance.—Regular attendance; absence by sickness only allowed, and not to exceed 20 per cent. of the course. Examinations by quiz twice a week. Final examination to be conducted, when practicable, by other than professors.

Dissections and Hospital work.—Two courses of each.

Duration of study.—Not less than three years.

The college must show that it has a sufficient corps of instructors and facilities for hospital work.

Virginia has already established a State Board of Medical Examiners, before which every applicant for practice, after January 1, 1885, must pass a satisfactory examination before practicing in the State.

Prior to the organization of the Illinois State Board thirty of the regular colleges required an entrance examination; fifty-nine now require it. Ten colleges formerly required a three-years' course, and sixteen now require it.

It is a foregone conclusion that every State must come to this, for the sake of its sanitary welfare and its own prestige. Physicians will be better educated and more competent, and citizens will feel more secure, and much of the approbrium connected with the profession, which it, unfortunately, often deserved, will disappear.

E. R. CORSON, M.D.

SAVANNAH, GA.

MODERN EDUCATIONAL METHODS APPLIED TO MEDICINE.

SECOND LETTER.

To the Editors of the N. Y. Medical Times:

IN a former letter I pointed out that the lowered standard of literary attainment for medical students, the practical abandonment of the old system of medical study under a preceptor, and the constantly widening range of medical study, had greatly modified the conditions of medical education; and that the attempts of our colleges to meet these new conditions were usually inadequate, unsatisfactory, and, when compared with similar attempts in other educational institutions, decidedly behind the times. I showed that the reason for this unfortunate condition of things lay in the fact that professors in medical colleges as a rule were not teachers in any proper sense of that word, but were simply men more or less eminent as practitioners and therefore chosen to lecture upon their specialties to the student; and that the colleges were to be blamed for undertaking too much in the time allotted to their course, and for neglecting to thoroughly systematize their work.

To examine the points made against the colleges a little more in detail will now be in order, and first comes the one which in reality includes all the others, viz.: That the professors are usually not competent teachers in the best modern sense of that word. This is sufficiently shown by the prevailing method of instruction in vogue in all our colleges, viz., lecturing. A lecture is a very convenient form of conveying information from one person to a number of others at once, but it is a very poor form of teaching and has been so regarded by the best teachers since the time of Socrates. Its sole appeal is to the memory, and the teacher who aims at the developing of a well rounded student will avoid direct appeals to the memory as much as possible, knowing that the memory will be of most service to its possessor when it is stored through the efforts of the other faculties of the mind—perceptive and reflective. The lecture has its place surely; it is needed to keep the instruction of the college abreast of the latest discoveries of science, for it is well nigh impossible to keep the books on certain subjects fully up to the latest researches, and they must be supplemented in some way. Again, a thoroughly competent professor could hardly be expected to fully agree with any other author on his own subject, although he might regard the other's work as the best text-book for his students, and hence for supplementing and correcting the text-books we need and always shall need the lecture, and on some subjects like pathology, for example, more lectures will be needed than on others. But to lay out a regular course of lectures on such a subject as anatomy seems the very height of absurdity. Not a thing can be told an ordinary medical student that will not be better told for his purpose in "Gray"; and beyond correcting what the professor may regard as Gray's errors, and demonstrating, he can best elucidate his subject and fix it upon the student's memory by judicious questioning. The foregoing is as true of some other subjects as of anatomy, but to require the professor to make use of "judicious questioning" is emphatically to ask of him the work of an expert teacher. For nothing more certainly proves the good teacher than do his questions. To catechize a pupil is simply to test his memory, but to question him judiciously is to *teach* him in the very highest and best sense. It is rare indeed to find a medical professor who is an expert questioner for students, but aside from that fact they fail in "quiz" because they too often question for the sake of finding out what the student knows instead of for the purpose of teaching him; and because their questions are not properly related to the student's previous attainments and present occupation. A teacher can accomplish three things by questioning besides finding out what his pupil knows. He may develop his powers of thought by compelling him to adapt information already in memory to novel circumstances presented in the form of a question; similarly he may throw new light upon a truth and show it in new relations by his questions; and he may impress more firmly upon the memory by questions, truths acquired in other ways. I have heard a professor, and a rather shrewd questioner he

was too, conduct a "quiz" in materia medica in a way that did about as little good as such an exercise well could. The reason was because he took up whatever drug or symptom occurred to him in the whole range of the materia medica, and questioned upon it, sometimes going the whole round of the class before getting a satisfactory answer. Such a system of questioning is little better than time thrown away. It is a search after something in someone's memory which when found, is brought to the attention of the class as a first impression and a very transient one. The same shrewdness devoted to one or more drugs previously selected and announced to the class for preliminary study, with perhaps the addition of a review of similar recitations held previously, would have been of the greatest service in deepening impressions already made, even if the other objects of questioning had been overlooked. An impression made upon the mind by once reading a thing, is apt to be faint and transitory. Reading it again deepens the impression and the sooner the re-reading occurs the more effectually is the impression deepened. Speaking of the thing read, hearing of it, answering or asking a question about it, reading a varied or counter statement, are still more powerful methods of deepening the first impression, and each of them is more serviceable the sooner it follows the original impression. He who remembers and applies all of these things in his questioning is the good teacher, and those who do are hard to find in our medical faculties.

Again, in order to teach well, a professor must individualize his pupils and direct his teaching in each case according to the particular needs of that case. The system of filling each chair with a specialist effectually prevents this individualizing, for it makes the work of teaching but a small item in the life of the professor, who having so many other demands upon his time naturally crowds his teaching into too small a corner to admit of his studying his pupils and their needs individually. The idea that each chair requires to be filled by a man who has made that subject a life study is all nonsense. A good teacher, one who makes teaching the principal work of his life, can always master several of the departments of medical study sufficiently to give students all they can learn and all they need to learn while students, and such a teacher can also become acquainted with his pupils and serve them vastly better than the greatest specialist that ever lived. A graduate studying some particular branch wants the instruction of the specialist, and he wants it privately or in a small class; but the undergraduate wants nothing of the kind, and is not capable of appreciating it if it is offered to him. Another disadvantage of making teaching a side issue with the professor, is that his other engagements often crowd his lecture out or make it very late. For example, in a recent session of a medical college more than forty lectures, to the senior class alone, were omitted entirely, besides nearly as many in the junior course, and this without counting the lectures that were made up or those commenced so late as to be nearly as bad as omitted. Such a thing could not have occurred if the professors had been true teachers.

The fact is we have four medical colleges in this country where we need one, and in most of the colleges we have three or four professors where one real teacher would do far better work; and as the result of our wretched system we have fully ten doctors in the country for every one that is needed, even on the untenable theory that all the doctors are competent. Our colleges have been organized as money-making institutions; the managers have used a long list of professors and a glowing account of advantages as attractions to win students and their money; and they have graduated as many doctors as possible to make the catalogue reflect the popularity of the institution. Professors have accepted chairs because the title "Professor" is a little more distinguished than "Doctor," and looks well on the front page of a book, besides having a tendency to pay in lecture fees directly and in increased practice indirectly. Before we can have thoroughly efficient medical training these things must be corrected. We must have fewer colleges, each founded upon an endowment and provided with a faculty of professional teachers whose principal business shall be in the work of the college, and who shall be assisted as much as may be necessary, and preferably in post-graduate courses, by specialists in certain departments.

The remaining points alluded to in my communication of last month must be reserved for consideration in still another letter.

Very respectfully,

HENRY G. HANCHETT, M D.

NEW YORK, Dec. 11, 1884.

MEDICAL EDUCATION IN SCOTLAND.

To the Editors of the N. Y. Medical Times:

WE have received, from a correspondent, some Scotch newspapers, containing condensed reports of the introductory lectures delivered by the several professors in the medical schools of Edinburgh and Glasgow, at the opening of the current session. The first impression derived from their perusal is of a certain robustness of thought in the handling of the medical topics discussed, and of a sense of personal accountability, on the part of the professors themselves, for the proper and thorough education of the students who attend their teachings.

Thus Prof. CHIENE, in opening the class of surgery in the Edinburgh University School, told his hearers that "his duty was to try, so far as he could, to help them to learn surgery, and he had very especially to take care, in so doing, that he did not prevent them from teaching themselves, because he was particularly anxious that they should not come there simply to absorb what they were told. He was equally anxious that they should question everything that was said, that they should think for themselves, and that there should be no feeling of distance from him or from any of his assistants. (Loud applause). The key-note to the course was that they were fellow-students—(applause)—and he was extremely desirous that they should not feel that there was a sort of line of demarkation—(laughter)—between them and any of their so-called teachers—himself and assistants—so that there might be no diffidence in questioning the teachers when in difficulty. (Applause.) In directing their attention to what were called the general principles of surgery, he would only be following in the footsteps of his masters and teachers. If there was one point in which SYME was a strong man as a teacher, it was the great faculty he had of drawing from a simple case a general principle, and avoiding any allusion to minor points, which would mask, so to speak, the general principle. That was the case also with Mr. SPENCE. (Applause.)

In opening the class of the Practice of Physic, at the University, Prof. GRAINGER STEWART took occasion to direct the special attention of his students to the importance of little influences, long applied, in the production of disease; or, to put it in another form, to the fact that *disease was often produced by the prolonged slight transgression of the laws of health.* But they would be surprised to see how often disease was produced, not by excessive over-eating, but by taking continuously just a little too much food. The patient who went on habitually putting just a little too much food into his stomach, who ate one meal too much, say, or a little too much

at each meal, inevitably damaged his constitution. Whatever was the tendency to disease in such a person would come forward. He would develop a dyspeptic or a gouty tendency, it might be, or various liver or kidney diseases, and so on. If this was true as to food, it was also true most emphatically as to the use of alcoholic stimulants, and that to an amount far short of what would be called excess. Then, they would often see in their practice ladies, and women in the humbler ranks of life, with all sorts of queer symptoms that they would be able to trace readily to tea, taken in too great quantities, too strong, or too often; while in the members of the University, for instance, he had found that indulgence in too much *tobacco* was a more frequent cause of illness, disturbing the circulation and damaging the condition of the patient. Let them remember, from those hints, the importance of the effect of the prolonged application of slight causes in the production of the most formidable results in the way of disease. The Professor also devoted a large portion of his very able lecture to the increasing value of *diet* as a means of curing disease.

Prof. T. R. FRAZER, in opening his Materia Medica Class, at the University of Edinburgh, traced, in a very lucid manner, the gradual evolution, since the days of Hippocrates, of the science of pharmacology—"a branch of medicine now for the first time acknowledged in the University. It had become a necessary part of medicine, and intimately related with therapeutics. This latter subject was also embodied in materia medica, and constituting, as it did, the art of treatment of disease, was the ultimate object of all medical investigation. In the meantime it was governed by the state and advance of pharmacology—the science of the action of remedies, and of pathology—the science of disease. When these should have attained the position of assured sciences, then therapeutics would rest on a very safe foundation. The separation of materia medica into these two groups had now been effected, and wherever it had been effected there had been a recognition of the advantage of separate modes of discussing and teaching the two groups, the first in the museum and the second in the lecture room. The function of education was not, however, the only one which the University had to discharge. Its function was not only to diffuse knowledge, but to afford the votaries of science with the means of research, and to become itself a centre from which light should radiate. The University, accordingly, in the new department, offered them many opportunities of research, which would, he hoped, be availed of."

Prof. GREENFIELD gave his Pathology Class a stimulating address on the life and work of Prof. Cohnheim, Virchow's greatest student, who died in August of the present year.

Prof. RUTHERFORD delivered the Edinburgh University opening lecture in the department of Institutes of Medicine, on "Time-Relations of Some Physiological Processes." "The measurement of time, he said, was one of the fundamental methods of physical science; the value of time lay in its relation to movement; every movement occupied a fraction of time; and life consisted in certain trains of movement, which brought about peculiar results. He illustrated the subject by an experimental study of the time-relations of the movements that can be set up in the two master tissues of the body, muscle and nerve, showing how a period occupied by a visible motion, and a period occupied by an invisible motion, might be measured." This he illustrated by experiments, as also, the measuring methods of the time required in the comparatively simple brain operation of receiving a sensory impression and issuing a motor impulse.

In Glasgow, at the formal opening of the University, an address was given by Prof. LEISHMAN, who noted the better preparatory equipment of young men of the present day in commencing their medical studies, as compared with that of thirty years ago. The great advantage of the Medical Act of 1858, he said, was that it required a fair preliminary education, although the test was not a high one. It was not his intention to say anything against "cram" in connection with medical examinations, but he urged the students to have something more than mere "passes" in view. Doubtless he would be a bold man who, in those days of subdivided examinations, would propose to revert to the single examination method. It might be said, however, that while the old plan had obvious disadvantages, the modern one was also open to objections, although of a different kind. One result of the present system was that students had not so much time now for work in the dissecting room as they had thirty years ago. In his opinion that was, or ought to be, the cause of much regret, and, indeed, he would almost venture to predict that the day was not far distant when the medical curriculum would have to be extended from four to five years, as had for some time been the case in several Continental schools.

The winter session in connection with the Glasgow Royal Infirmary School of Medicine was opened, and Dr. JNO. GLAISTER, lecturer on medical jurisprudence, gave the introductory address to the students. His subject was an inquiry into the necessity that exists for legislative reform in regard to uncertified deaths in Scotland. This he showed in the large opportunities that exist for the commission of secret crime or culpable neglect, and also because of it the statistics of the Scotch Registrar-General could not be looked upon as being in many respects a true index of the national health. The question, he said, was again coming to the front, and it was a question that ought to be pushed home to an issue. It seemed to him that the State ought never to be in such a position as to be compelled to say that it could not satisfactorily account for the death of every unit within its care. Discussing the question how reform might be instituted, he suggested the appointment of some official in the capacity of medical officer of health, invested with full powers to make any kind of inquiry that any given case demanded.

The winter medical session of Anderson's College, Glasgow, was opened with an introductory address by Dr. THOMAS BARR, lecturer on aural surgery. Warning them, squarely, of the arduous nature of the studies they had entered upon; and the still more arduous and poorly requited labors to which their final qualification would commit them, he also reminded them that it was their high prerogative and responsibility to influence the voters of the country on the great questions of health by educating them as to what should be done and what could be done by judicious laws. There ought, in his opinion, to be some such legislative programme as the following for every district, town and village in Great Britain: Compulsory inspection and supervision of the drainage, water and milk supplies; purification of the air of large towns and cities; increasing the air spaces of cities; control of the erection of dwelling houses, so that they might be at least as comfortable and healthy as reformatories and barracks; compulsory registration of case of sickness; purification of polluted rivers and water courses; and compulsory education of children in hygiene and laws of health. He hoped that after the franchise bill had been dealt with, the two political parties would rival each other in demonstrations for such a policy as that."

It will be seen from this brief glance at the topics thus brought before the attention of the opening classes in these two great centres of medical education, that professors do not hesitate to present on these occasions matters of the highest *practical* importance; that they take for granted that their

students, even the new ones, are fully in sympathy with these subjects, and that they do not disguise from them the fact that they will be expected to undergo the severest mental effort in reaching the goal of their desires. The preparatory, or "entrance examination" (which our American colleges are, with few exceptions, shunning) is, in Scotland, of a nature which we should consider as about equivalent to a graduation examination at three-fourths of our colleges; yet, we find a general consensus of opinion in Great Britian that it is not severe enough. And the half-yearly "exams." (all triple in their character, *i. e.*, written, oral and clinical) are so severe that fully one-third of those coming up for examination are "spun" (unsuccessful), and thereby set back another year. It is, indeed, a solemn thing to be a Scotch medical student; yet it has its advantages. It profits the worthy, stimulates the careless, checks the profligate ("wasters"), fixes the unequivocal badge of worth upon the meritorious; and the unequivocal badge of demerit upon the worthless—in short, conserves and strengthens the standing and the influence of the medical profession in the estimation of the public.

During the past summer it was our good fortune to enjoy, for a time, the society of a young American student at Edinburgh, who was spending his long vacation here, after an absence of eight years. His text-books, which we examined, were, especially those in pathology, histology, and physiology, of a class almost unknown as text-books here; being, in fact, such books as, on this side of the water, are to be found only in the hands of those who are engaged in special researches, etc. A perusal of his note books also showed a clearness of instruction and a wealth of illustration (students there being *required* to copy the illustrations furnished at the lectures) unusual to our previous experience of such memoranda. These, together with his statement of the laboratory training and the other Scotch and English methods of medical education, assured us of the intensely practical and thorough character of the training which he was undergoing.

Now, we cannot believe that our own young countrymen are unable to accomplish what thousands of young Scotchmen and Englishmen are doing. But the steady advance made in the *ideal* of British medical education, since the passage of the Medical Acts Bill, in 1858, leads to a conviction that a determined effort in that direction by the medical profession of the United States could not fail to have equally satisfying and important results. H. R. S.

DR. CARMICHAEL'S "MAGNETO-THERAPEIA."

To the Editors of the N. Y. Medical Times:

I FIND, in your journal of November, a very carefully prepared article, written by J. A. Carmichael, M.D., entitled "Magneto-Therapeia." There was something so uncommon in the title as to attract my special attention to its contents.

Notwithstanding its merits and force of language, I fail to understand the exact sense in which the author uses the title; and I also fail to see any directions, rules or theory presented for the endorsement of his "Magneto-Therapeia" as a practical agent in medical treatment.

Is it animal magnetism, from one individual to another? or is it magnetism, pure and simple, from a metallic source, hence an artificial, magneto-electric instrument? If the former, he, Dr. Carmichael, has not demonstrated its uses and its advantages, but if he has discovered any, I shall be glad to learn its usefulness in a practical and therapeutical sense.

Galvani's medical electricity is the only agency which is known to possess a similitude to cellular electricity existing in the animal economy.

There is a magneto-electric force which is obtained from a battery of a single coil, *in contra* to the galvano-faradic, which has two coils and two currents, viz., constant and induced, sometimes called continued and interrupted currents, all names which are synonymous.

Under these names the currents are the result of solid or fluid electro-motors, and we do not include animal magnetism or mesmerism, except as a peculiar influence which is sometimes found in some few individuals.

Animal magnetism, therefore, will not be the subject of our study. At the same time I will endeavor to answer the other questions.

Dr. Carmichael's paper asks a series of very pertinent questions upon cellular physiological functions and their peculiar characteristics as agents of vital force. At the very beginning of this article, I must say that the answer can only be approximately given, for, as the learned gentleman knows, there are, unfortunately, many points, which even science, so far, has failed to make perfectly free of uncertainty.

We are asked the following questions: "Is aphasia an anæmic or bloodless condition of the brain?" It certainly can arise from anæmia, but other causes may also produce it. A bloodless brain presents only death, and not a pathological condition for medical discussion. It goes on: "Is it an embolus, by which nutrition is prevented? or extravasation of the blood from undue congestion, or is it devitalization of the ultimate brain cells, which we believe to be the potential factors of brain power," etc.

Pathologically speaking, this condition (aphasia) can be caused by the abnormalities noted by Dr. Carmichael himself, thus entirely disconnecting all links of normal co-ordination of speech, provided they involve that part of the encephalon which has the potentiality or peculiar endowment.

Perhaps it may not be presumptuous to say that these conditions, by careful diagnosis, are often traced to the very fountain of the disorder; but still we are often bewildered by lesions which bear a mixed character, where both sensory and motory are involved without any special sign of trophic disorganization or hyperæmia. Again, anæmia may be the result of three conditions: Poverty of the red corpuscles of the blood, from mal-nutrition; secondly, mechanical obstructions, either from a growing tumor or a thrombus; thirdly, reflex action or irritation.

Under this order of pathological lesions the result is pretty much the same, though one condition is more amenable to treatment than another. And it may be an exudation either from the cephalic membranes or extravasation of blood, both essentially different, pathologically, but of which the outward signs are the same; though here we can often determine the nature of the exudation from the idiosyncrasies of the patient, his habits and his constitutional inheritance. Lastly, we shall answer the most difficult question, because it presents the most intricate pathological lesions, viz., ramolissement, devitalization, or breaking down of the cellular apparatus, by either tubercular invasion, cancerous or sclerotic lesions (nodular), etc., leaving aside the occasional traumatic causes. Upon these conditions it is indeed difficult for any physician to give a decided differential diagnosis, though the prognosis is well known; but the intimate knowledge of pathology bears us out and leads us to understand the nature of the disorder. The question is also asked, "Is there any ultimate fundamental structure of the brain, whose properties and functions resemble those of the magnetic currents?"

The Doctor's numerous indisputable authorities have only said, "The histological interpretation of the cells of the brain is substantia gelatinosa, possessing nuclei and nucleoli, of an

exquisitely intense vitality, by which functions such as those of vision, olfaction, audition, etc., are performed." Again, "are we to accredit all these great phenomena of life to dull, inert matter? Is there no *vis insita* or hidden force compelling these manifestations?"

The physiologists and pathologists, in their works on this subject, have certainly, if I am not in error, explained the fundamental principles and functions of cellular activity and phenomena in the wonderful process and development of life, though they may not have satisfied our learned colleague.

Science has established that the source of development of organic life, vegetable and animal, depends upon the co-ordination of three forces mainly, viz., physical (hence electrical), chemical and vital. "Is there no *vis insita*?" we are asked by our learned colleague. Most certainly, we have an unmistakable datum from the most reliable scientific physiologists of the world, viz., vital force arises from a process of decomposition and molecular disintegration, and this act is produced by atomic and molecular attraction. During the dynamical transition and separation of atoms an attraction of molecules takes place from an inherent *static force existing within the matter, self-acting* and with energy of its own ("intense vitality").

Molecular force has a different origin from chemical force; it arises from a changing process, like fermentation in vegetable life, disintegration, activity and new organization in the animal life; from the very beginning, and by various processes the living atoms are set in motion, which heretofore were in a state of cohesion (dipolar).

An attraction takes place by molecular affinity to the equatorial axis, and hence a new activity goes on and develops new formations. Therefore there is a very little doubt as to molecular attraction and atomic motion forming that wonderful phenomenon, vital force. Admitting, therefore, as we have, a static force, we must also admit that this form and power exists in the organic matter, and it only needs the momentum to develop it, such as heat, moisture, electricity. This molecular motion (activity) develops, as we have already stated, new combinations and new living molecules, viz., proliferation.

It is well authenticated that by such process new formations are *constantly* taking place, produced by this atomic and molecular activity.

The animal cellular structure, whose elements are in perfect quantitive relation, viz., sulphur, phosphorus, nitrogen, these being united and animalized by physiological process, are undoubtedly changed into matter and tissue, as we witness in the development of the egg in the state of incubation, and in vegetable matter under the condition of fermentation. From these evidences we plainly see its nascent force of development, etc.

In regard to cells, "potential factors of the functional activity, necessary to the constant fulfilment of respiration, circulation, digestion, nutrition and secretions," etc., all these and more are necessarily subservient to cellular activity and force, without which no nervous force could be attained. At the same time, we must not forget the correlation of many physical influences, which go, altogether, to make and maintain this static force and keep the cells in analectrotonous and catelectrotonous phases (positive and negative conditions).

Having introduced electricity as a condition in cellular activity, I therefore must refer Dr. Carmichael to the scientific works of the following physicists, viz.: Haller, Humboldt, Nobili, Matteucci, and DuBois-Reymond, for the great discoveries of molecular magneto-electric force *existing* in the cells, in the nerves and in the muscles.

Nobili, in 1827, discovered an electric current in the frog, etc. Prof. Matteucci confirmed the discovery, and at the same time corrected the erroneous supposition that the current was of *electro-chemical* origin; moreover, Prof. Matteucci demonstrated the presence of an inherent electric current (not magnetic) flowing in the direction of the long axis of the animal trunk.

Prof. DuBois-Reymond, through the assistance of the galvanometer, demonstrated further the presence of specific muscle and nerve currents by the deflection of the magnetic needle.

From these facts and valuable researches DuBois-Reymond concluded that nerves and muscles contain innumerable positive and negative electric molecules (not magnetic) which move with great regularity through the tissue. These have an equatorial positive phase and two negative zones. The current indicated by the galvanometer shows but a small fraction of the currents that exist in the animal economy.

And again: DuBois-Reymond has also shown that the phenomenon of the negative current exists in the human body and that the multiplicator indicates a weaker current in a muscle when voluntarily contracted than when in repose, etc., and this takes place according to the approximate position of the cells to the *equatorial axis;* they receiving a corresponding force or tension from that source. The very act of contraction of the muscle changes the current from the positive into a negative phase.

The molecules thus receiving their supply of activity from an equatorial axis, according to their proximity to it, the same peripolar molecules being in a condition of *semi-repose*, during excitation turn 180 times upon their axes, thus separating their atoms and becoming dipolar. And so all molecules change their *polarity* as they move towards the equator, the positive and negative zones turning in opposite directions, thus presenting their negative zones to the positive hence completing a perfect closed battery. These cellular oscillations towards the equatorial centre keep up their activity as they are receiving their necessary supply of force. Considering that these molecules are at various distances from their equator, they must therefore be endowed with various degrees of electric force, hence their positive and negative relation. These molecular movements in their innumerable cellular apparatus constantly change their phases from positive to negative, etc., and these little batteries of clustered cells ramify and develop the *rete nervosa*, through the whole animal economy.

To be sure the life of these little entities depends upon many other physical and physiological conditions, and at the very moment that this vital unity of action loses its equilibrium or they change in the least their elementary properties, the co-ordination and the life of the cells are at an end.

One more question is asked: "Whence comes this potentiality?" The physiologists properly answer: From an inherent vitality existing in the cells, called "static force." Our colleague, however, does not seem to find any satisfaction or solution in this answer.

Allow me to add that the physiologists have given us a thorough and convincing solution of the "cell-inherent vitality" by giving the constituents from which the nascent vital force arises.

And physicists accepting these fundamental laws as convincing and true, find in molecular atomic motion an electric co-ordination combined within the primodial cell, as already stated. From this axiom we must pass to an equally important one, "What will restore and compensate those vital energies when they are prostrated or arrested?"

The phenomenon of life is a complexed sublimity, interwoven with material and immaterial agencies, which are not all clearly and practically demonstrated; and, because of these difficulties, the restoration and resuscitation of them, when their energies are impaired, is always, and has been, from unknown ages, the discouraging obstruction in the path of medical science, thus withholding from us all the great desideratum, viz., a positive science.

We must, however, resign ourselves to our present limited knowledge of life and its functions, and rejoice that, with a proper comprehension of physiology and pathology, we can reach much that once was hidden in utter darkness, often applying much that is beneficial in a general sense, sometimes even restoring to the withering cells their former energy and vitality.

Galvani's therapeutics, though not a "cure all," is certainly an element from which we can reasonably hope to obtain very satisfactory results and with other agencies already at our disposal, we have in it a powerful coadjutor in the treatment of disease.

CIRO DE SUZZARA-VERDI, M.D.

WASHINGTON, D.C.

QUERY.

To the Editors of the N. Y. Medical Times:

I SEE in Acton's book on "Urinary and Generative Organs" he says "Swediaur injected ammonia into the urethra and the result was gonorrhœa." Can any of your readers say if ammonia carb. is used in America for gonorrhœa? I have found coltsfoot—*tussilago farfara*—very useful in that disease.

DUBLIN. E. B. I.

THE CLIMATE OF HOT SPRINGS, LAS VEGAS, NEW MEXICO.*

LAS VEGAS, NEW MEXICO, *Dec.* 5, 1884.

To the Editors of the N. Y. Medical Times:

I HAVE looked into the matter of climatic cure for pulmonary complaints since I came here. The theory (and I am compelled to admit the force of it), is, first, the air in these high altitudes is purer, freer from destructive organic germs; and, though containing less oxygen than at a lower level, is of greater oxidizing power, owing to the greater amount of that peculiar electrified form of oxygen, ozone. (See Tyndall's experiments in the Alps.)

Patients, on first coming here, find that they must inhale a greater quantity of air in order to obtain the usual amount of oxygen. This causes, at first, shortness of breath and increased respiration until the lung accommodates itself; the inspiration becomes deeper and every portion of the lung is receiving the highly oxidized air. The very effort to get the usual quantity of oxygen necessitates a greater amount of air inspired, and acts mechanically by distending the air cells to their utmost extent, in tearing open those partly occluded, in introducing into every portion of the lung dry, highly-oxidizing ozone, which checks the exudation into the air cells and bronchia and breaks down and burns off the products already excluded. There is, therefore, an arrest and cure of the disease, providing the destruction of lung tissue has not been too great, and that the patient has fair assimilative power and vitality.

The conditions then are, dryness, rarified air and air of high oxidizing power. I think this place fulfills all these conditions.

* Extract of a letter received from a medical gentleman visiting New Mexico for his health.

At this great altitude, for the first two weeks, patients are apt to suffer somewhat. I have had quite an attack of catarrhal fever, with headache, coryza, sore throat, gastric and intestinal irritation. But almost all patients here claim that, after the first week or so, a great benefit is obtained by staying.

We can be out every day from nine A. M. until four P. M. At noon the thermometer reaches as high as seventy degrees. After four P. M., it rapidly grows cold, and at night goes away below freezing point, and we awake in the morning to find solid ice everywhere. We have had twelve days of sunshine thus far. Our days are like a mild October day at home. To-day has been a trifle colder; thermometer only about fifty degrees.

F. H. HUMPHREYS.

TRANSLATIONS, GLEANINGS, ETC.

VALUE OF SINGLE SYMPTOMS IN DIAGNOSIS OF DISEASES OF CHILDREN.

IN the *American Journal of Obstetrics*, Vol. xvii., No. 77, appears a valuable and interesting abstract of an article by Politzer, of Vienna, published in the *Jahrbuch*, xxi., B. 1 and 2 H. In this article Politzer arranges certain marked and characteristic symptoms of disease together in such a manner that a diagnosis can readily be arrived at from these alone; at all events they lead to proper interpretations almost immediately.

The author considers first a few symptoms which make his position especially clear. They are:

1. *The symptoms of a strongly marked nasal or palate sound in the child's cry.* This symptom, at first glance, may not seem in its individuality to mean much, but in many cases it may lead us to early diagnosis of retropharyngeal abscess. This disease is not rare between five and six years, but is very often overlooked, especially in the first few days of its existence. Other symptoms of it may all be occasioned by other diseases, and inspection of the throat may not discover it. This nasal tone should *always* lead us to palpate with the finger in the throat—the only sure way to discover a retropharyngeal abscess. The cry is not pathognomonic, but Politzer relates some interesting cases where he made the diagnosis from it.

2. *A long drawn, ten to fifteen times lengthened, loud-sounding expiration, with normal inspiration and no dyspnœa.* This symptom, even when alone, is sufficient for the diagnosis of *chorea major*. Cases are detailed where for days this was the only symptom of a commencing attack, and some in which it was almost the only symptom of the whole disease. It takes place without any dyspnœa, with perfectly quiet movements of the diaphragm, and no effort of the accessory muscles.

3. *A high thoracic, continually sighing inspiration.* This is one of the most important "single" symptoms mentioned, and one to which certainly not enough attention has been paid. It shows the *commencement of cardiac weakness, cardiac paralysis*, and in certain cases fatty degeneration of the heart. It is not a stenotic respiration (as in croup, etc.), shown by forcible action of the diaphragm principally, but high thoracic, the upper part of the thorax doing the work, and instead of the stenotic sound we have the sighing or groaning. Long before other symptoms of cardiac weakness occur, such as cyanosis, coldness of extremities, etc., this sudden change in the respiration may be a guide-post to what is coming.

4. *Strongly marked diaphragmatic expiration, accompanied by a fine, high whistling sound.* This symptom is almost the opposite of the last. It points to *asthma bronchialis*. The

author guards himself here. The respiration of croup or even of capillary bronchitis may greatly resemble this, but the point is that when we hear it we should always incline to the diagnosis of asthma, and, if other symptoms bear us out, we shall not have to give so bad a prognosis as otherwise.

5. *Pause between the end of expiration and the beginning of inspiration.* This is a valuable single symptom to differentiate between *catarrhal laryngitis* with submucous œdema and catarrhal spastic stenosis and *true croup.* As long as the pause is clear and distinct the croup may be excluded. The younger the children the surer is this sign. But the ear must be placed close to the child's mouth to be sure that there is an appreciable pause. Cases are given in which the author advised against tracheotomy in apparently fatal issues, and yet the patients recovered, and this, too, without the expulsion of any membrane.

6. A class of single symptoms which are of worth in the diagnosis of brain disease :

(1) *Sleepiness, lasting some time and occurring without fever or other apparent disturbance to account for it.* The first question is, has the child fever? though even here we must inquire if the latter is not out of proportion to the former, and if so, we must look out for cerebral trouble. But when we find *sleepiness* for twenty-four to thirty-six hours, *absolutely without fever,* we may regard it as a pathognomonic initial symptom of idiopathic cerebral disease. In such a case we think at once of basilar meningitis. The latter very frequently occurs in the course of other diseases, and there is no other single symptom on which its commencement may be so surely predicted as this feverless sleepiness—not even the vomiting, the long-continued headache, the slow irregular pulse. Any of these may occur alone, and yet disappear. Of course, if all occur together, the case is clear. But the sleepiness, even alone, is sufficient for a diagnosis. There are only two other things which could cause it—narcotics or uræmia. In some rare cases the sleepiness might point to an acute hyperæmia instead of a meningitis, but this is so rare that its existence is doubtful.

(2) *A prominent, firm fontanelle, not disappearing on pressure.* This means increase of the quantity of the contents of the cranium, *exudation* of some sort. It cannot be caused by fullness of the vessels alone. In some acute hyperæmias there is a prominence of the fontanelle, but it is not firm and resisting as here described. This symptom may be valuable in the following cases :

(*a*) Its absence in the delirium, sopor and convulsions of violent fever will show us that the causes of the symptoms are extra-cranial.

(*b*) In intermittents and fevers with high temperatures we can determine by its presence or absence the existence or non-existence of cerebral complication.

(*c*) In pneumonia, when we have sopor, convulsions, and even contractions of the neck muscles, a soft fontanelle will show us that there is still no exudation, and in a few days all these symptoms pass away.

And so in the beginning and course of typhoid, in nephritis and other diseases, the condition of the fontanelle is a valuable guide. When we find this firm, resisting and prominent, we may know that we have an autonomous cerebral disease, with exudation. When the fontanelle is soft, whatever the symptoms, we may exclude such trouble. When the fontanelle, in addition to being enormously distended, is also entirely free from pulsation, it can mean but one thing—infantile apoplexy, inter-meningeal hemorrhage. When deeply sunken, it points to loss of blood or other nutritive juices, as in cholera, enteritis, etc ; when the eyes as well as the fontanelle are deeply sunken, the diagnosis of loss of fluid is evident at the first glance.

(3) Very slow movement of the head and a staring look in the wide-open eyes is one of the early symptoms of basilar meningitis, though not so valuable as the sleepiness already spoken of.

7. A series of single symptoms depending on the *variety of crying :*

(*a*) *A sharp, shrill cry, accompanied by an an expression of fright or great anxiety,* and occurring typically about an hour after the child has fallen asleep, is a single symptom in the strictest sense of the word. It is, in fact, the only symptom of the Alp night terrors, the sudden awakening from bad dreams.

(*b*) *Periodical crying, lasting from five to ten minutes,* sometimes occurring day and night, but oftener only at night, should always make us think of a *spasm of the bladder or painful urination.*

(*c*) *Violent crying at stool,* with fear of the act and avoidance of it, points to fissure of the anus, generally accompanying constipation.

(*d*) *A violent cry, full of pain and almost continuous,* with a throwing about of the head on the pillow and grasping it with the hands, means *earache or otitis.*

(*e*) Crying continued for weeks, increased on touch of the extremities, accompanied by fever and incessant sweating, may be a symptom of acute general rachitis.

Some important single symptoms frequently overlooked :

(*a*) The peculiar physiognomy of hereditary syphilitic children, never to be forgotten.

(*b*) Falling together and immobility of the alæ nasi during the nasal inspiratory act. This indicates *tonsillar hypertrophy,* and is usually accompanied by snoring at night and a narrowness of the chest.

(*c*) Weakness or immobility of a child after a comparatively short sickness. This is an important finger-post to make us watch for spinal paralysis. In this connection we must at the same time examine the child in regard to the next two points, viz. .

(*d*) Slight deafness, especially when it follows some apparently trivial disease, is apt to point to some trouble at the base of the brain. In young children deaf-mutism may thus commence.

(*e*) Depression of physical activity. Overlooking this we may pass the stage of an idiotismus acquisitus and our best chance for treating it. It is easy, in noting the condition of a child after a sickness, to observe these three points above mentioned, and we should make it a rule to do so in every case.

(*f*) Abnormally delayed ossification of the cranial bones. It is the earliest *sign of rachitis,* and at this stage the disease yields well to treatment.

(*g*) An anxious, stiff attitude in walking, sitting, rising or bending, and, in children who are unable to walk, an expression of pain when picked up or laid down, is sufficient almost for the diagnosis of a commencing spondylitis.

(*h*) *Vomiting* of all kinds of food, continuing several weeks in children with closed crania, but with large cranial measurements, the absence of fever excluding any idiopathic disease, and the absence of pain excluding a cerebral tumor, we may diagnosticate chronic hydrocephalus with an acute onset.

(*i*) An attack of eclampsia should always make us consider and determine by other symptoms if it is not the first sign of epilepsy.

THE ANÆSTHETIC PROPERTIES OF COCAINE ON THE EYE.

By F. Park Lewis, M.D., Buffalo, N. Y.

The following résumé of a very interesting paper from the pen of Dr. Karl Koller, one of the assistant physicians of the *Allgemeines Krankenhaus*, has an additional value in the fact that it is to the experiments of Dr. Koller that the world owes its knowledge of the remarkable local effects of *Cocaine* upon the eye. The communications appear in the *Wiener Medizinische Wochenschrift* of October 24 and November 1. The value of Dr. Koller's discovery had already been demonstrated before the German Ophthalmological Congress of September 15 and 16.

The well-known anæsthetic effect which the local application of cocaine produced upon the tongue led Dr. Koller to the inference that the same result might ensue if a similar solution were brought in contact with the mucous membrane of the eye, and to verify his theory he conducted a series of experiments upon the eyes of lower animals

"If," says the doctor, "a drop of a watery solution of the muriate of cocaine be allowed to fall upon the cornea of a guinea pig, a rabbit, or a dog, or if it be dropped in the usual way in the conjunctival sac, the animal will wink the lids for a little time in consequence of the trifling irritation so occasioned: after one-half to one minute the eyes will open again and the animal will assume a peculiar staring expression. If now the cornea be touched with the head of a pin, care being taken not to disturb the eyelashes, no reflex spasmodic closure of the lids will follow—the eye is not turned away, nor is the head withdrawn as would have otherwise occurred. The animal remains perfectly quiet, and on the application of a stronger irritant, it is found that the cornea and conjunctiva have become completely anæsthetized. In the animals upon which I have experimented I have scratched the cornea, have stuck a needle into it, have applied to it the induced current of such strength as to excite severe pain in the finger, and which could not be touched to the tongue: I have burned the cornea with lapis divinus till the former was milk-white; and all without in the least disturbing the animal experimented upon.

"The last two experiments demonstrated that the anæsthesia was not merely superficial, but extended through the corneal substance.

"The instant that the cornea was perforated, however, and the aqueous fluid spurted out, prolapsing the iris, the animal would evince symptoms of acute pain."

Dr. Koller has not determined, in the animals experimented upon, whether it is possible, by introducing the solution through the corneal wound, or by delaying for a longer time after its application to the conjunctival sac, or by employing a stronger solution, also to anæsthetize the iris; as experiments on non-narcotized animals are conducted with great difficulty and do not give indubitable results. He has demonstrated, however, that the inflamed cornea is readily affected by the cocaine solution, for in animals in which he had excited artificially a keratitis, the cornea was as readily rendered insensible as when in its normal condition of health.

The complete corneal anæsthesia resulting from the application of a two-per-cent. solution of cocaine usually lasts for about ten minutes.

After the above successful experiments upon animals, the Doctor goes on to say:

"I did not delay testing the drug upon the human eye, and demonstrated first upon myself and a colleague and then upon large numbers of other individuals that, without exception, upon each of them cocaine had the effect of completely anæsthetizing the conjunctiva and cornea. After applying a few drops of a two-per-cent. solution of cocaine to the conjunctival sac, or better if they be allowed to fall upon the cornea, a slight burning sensation is experienced with a little increase in the lachrymal secretion. This disappears after an interval of one-half to one minute, giving place to a dim sensation with abnormal dryness. To an observer the eye thus treated has the peculiar staring expression already noted in the lower animals experimented upon. This expression is due to an increase in size of the palpebral opening—a phenomenon which the Doctor does not explain. If now the cornea be touched with a pin head, not only is there no sense of pain, but all consciousness of sensation will be found to be abolished: as are also all reflexes. The same is true of the conjunctiva in which heat and cold are no longer perceived. The conjunctiva may be seized by fixation forceps and the cornea pressed upon until it is indented without exciting the least unpleasant sensation, nor the smallest reflex movement on the part of the individual so tested. The only other perversion of function associated with this experiment is a dimness of vision which arises from the altered curvature of the cornea. Complete anæsthesia continues for from seven to ten minutes, when gradually the normal sensitiveness returns. In from fifteen to twenty minutes after the instillation of the solution the pupil begins to enlarge. During the first hour the dilatation is greatest. At the end of the second hour it has already grown smaller, and in a few hours later the normal size is regained. The pupil, however, at its greatest dilatation under cocaine is not *ad maximum;* and responds readily at any time during the experiment to light or on convergence. The sensation of dazzling common under atropia is entirely wanting, or is present only in the smallest degree."

Accompanying the mydriasis of cocaine is an almost imperceptible paresis of accommodation. In Dr. Koller's own case and in another individual upon whom he experimented, the near point was carried away only one-half".

In the healthy conjunctiva and more especially in its palpebral portion a distinct ischæmia was observed, but its duration was not definitely determined.

From his experiments with cocaine, Dr. Koller concludes:

First. That the anæsthetic effect of the drug is cumulative—that is, if after the local narcotism has been obtained the solution be again applied a degree of anæsthetic effect is obtained that continues for a longer period than would be produced by a single application. In this way by repeated instillations at intervals of five minutes he has produced an anæsthesia of fifteen or twenty minutes' duration.

Second. That the anæsthetic effect is quite local; that is, the effect is more marked in the place to which the solution is directly applied, and on which it is retained longest in contact.

Third. That the drug is very gradually absorbed within the eye; and by each additional instillation a small additional quantity is retained in the anterior chamber. When a sufficient quantity has been employed the deeper structures of the globe may be fully anæsthetized. While waiting, however, for the effect of the drug to reach the deeper tissues the corneal anæsthesia will have passed away, and a fresh instillation will be necessary.

By the repeated instillation of a stronger (five-per-cent.) solution, Dr. Koller has succeeded in half an hour in very greatly diminishing the sensitiveness of the internal structures of the bulbus.

XUM

So many experiments have already been published in this country in relation to the clinical value of cocaine, that a brief reference to Dr. Koller's experience will suffice.

The two-per-cent. solution was employed in a large number of cases of scrofulous conjunctivitis with corneal ulcers and in one case of vascular keratitis. The application in each instance was followed by an immediate sense of relief. Pain and photophobia were greatly modified. The relief continued for several hours, when the former condition returned. A similar result followed the use of the solution in a painful erosion of the limbus. Dr. Koller had not tested the drug in iritis, but he believes that its range of usefulness will extend to the iris. He expects that it will prove valuable in combination with atropia, but has not as yet employed it in this way.

He calls attention to its value in rendering the pulp-conjunctiva more tolerant of nitrate of silver applications, a use which Knapp has already demonstrated. His experience with cocaine preparatory to treatment with sulph. of copper, has been too limited and contradictory to warrant any conclusive inferences: he recognizes, however, the necessity of employing a stronger solution than when arg. nit. is used.

The operative conditions for which Dr. Koller has employed cocaine have been quite varied and with much the same results obtained by expermenters in this country.

He has removed large numbers of foreign bodies from the cornea, after applying a two-per-cent. solution without giving rise to the slighest pain; has tattooed one corneal scar, and removed one pterygium. He has used the actual cautery in one case of corneal ulcer; has punctured the cornea and performed discission of soft cataract. Both latter operations were absolutely painless.

In the clinic of Dr. v. Reusse two staphylomata were removed without other than this local narcosis, both being in children. The operations were quite painless

In an iridectomy and in a Graefe cataract extraction the result was not so fully satisfactory, Pain was lessened but not wholly abolished. In a linear extraction, however, in which a five-per-cent. solution was employed at five minute intervals for half an hour, the corneo-scleral incision was not perceived while the abscision of the iris gave very slight pain.

A typical instance of the value of the drug is shown in the case of a man with occlusio pupillæ. Under cocaine the sclero-corneal incision was made with a lance knife and the iridectomy completed without the least reaction. Eight days later, when an operation was attempted upon the other eye of the same man without the employment of any anæsthetic, the resistance was so great as to render the operation one of exceptional difficulty.

November 24, 1884.

NERVOUS DERANGEMENT OF THE HEART.—Milner Fothergill, in a paper on this subject, says: The organic diseases of the heart usually force themselves upon the notice of the patient by some indirect symptoms—as shortness of breath on exertion—rather than directly. With the neurosal affections, on the contrary, the attention is drawn to the heart directly and immediately. This constitutes a broad line of demarkation between disease and disorder of the heart. The first form of disorder was intermittency, a halt in the rhythmic stroke of the heart. As such, it is a mere "neurosal halt," though it is not uncommonly found in elderly men who may at the same time be the subjects of degenerative changes. In these cases, when the halt is increased by an effort, it has a suggestive value; even then the halt is usually less felt by the patient than is the true neurosal halt without any disease. Sometimes the halt is found in the radial pulse, when the heart's stroke can be heard; this tells of an arterial blood-wave too feeble to reach the radial artery. Then palpitation not linked with effort, but coming on at other times when quiet is being observed, or even waking the patient up from sleep, is neurosal in character, though having varied causal relationships. Not rarely it is due to some disturbance in the reproductive organs, especially in women. Pain in the side often co-exists with attacks of palpitation, and then the sufferer is sure her heart is "affected." Such "reflex palpitation" is commonly met with. Then there is the "tumultuous" or "badly behaved" heart, whose action is never calm, often a simple nuisance to its owner; there is, too, disturbed action of the heart from indigestion. Then the heart's beat may be slowed by the action of the "inhibitory" fibres of the vagus nerves, or hastened by some action of the "accelerator" fibres. In the latter case the heart may run off suddenly at the rate of 200 per minute for some hours, ceasing as rapidly as it began. The opposite condition is also present in some cases, though more persistent in others. Great disturbances of the heart's action, which is often markedly enfeebled, are found with latent gout, usually relieved by an attack of regular gout. Then there is the "irritable heart," where, though the condition is truly neurosal, there is distinct inability to maintain effort. This is the result of much hard work and mental strain condition, and is commonly seen in medical men. There are also the "smoker's heart" and "tea-drinker's heart," well recognized disorders; truly "toxic" derangements of the heart. Angina pectoris (vaso-motoria) may occur with a heart still structurally sound, or in one where fatty decay is established. In the first it is of comparatively little importance; in the latter it is fraught with danger to life. The treatment of neurosal complaints is as different as their nature.

OLEATE OF COPPER: ITS EMPLOYMENT IN FIVE HUNDRED CASES OF PARASITIC DISEASE OF THE SKIN.—From a valuable paper bearing the above title, by Dr. F. Lesieur Weir (New York *Medical Journal*, Aug 30, 1884) we extract the following statements:

The scope of usefulness of the remedy, so far as my observation goes, is confined to practically seven diseases, viz.: *Tinea tonsurans, T. circinata, T. kerion, Eczema marginatum*—all caused by the same parasite; *T. sycosis, T. versicolor*, and *T. favosa*—each due to a separate parasite. My plan of treatment is as follows: if affecting a hairy part, first of all cut off the hair close to the skin wherever a diseased spot shows itself, the clipped area extending at least one inch and oftener one inch and a half, beyond the margin of the advancing lesion. Having done this, the parts are then anointed with oil, fluid cosmoline (petroleol), or glycerin, or a bread and milk poultice is applied. This for the purpose of dislodging scales or crusts, if any be present. For the same purpose, when very much scurf or actual dirt is accumulated upon the parts, as is not unfrequently the case, especially in public practice, I occasionally direct the parts to be thoroughly scrubbed with castile-soap and warm water. Then an ointment of oleate of copper, of a strength suited to the severity of the case, is prescribed and ordered to be rubbed into diseased patches, gently but thoroughly, so as to procure as complete and rapid absorption as possible. If an exposed part, as in the case of ringworm of the head, it may be lightly covered with some appropriate material, or left bare, as the judgment and exigencies of the case dictate. The process of inunction should be repeated at least twice daily, this being usually amply sufficient. Unless an accumulation of scab-like substance should appear, it is not necessary or even desirable

that the part be washed except at frequent intervals. No set prescription is used—that is, in relation to strength—some cases requiring but a mild application, while others call for a very strong ointment. The following prescription illustrates the average range of strength in which it is most frequently employed :

℞ Cupri oleatis .... ℥ j–vj ;
Ung. petrolei.....q.s. ad ℥ j. M.

Between the two extremes above noted I choose a strength which the judgment indicates as being best suited to the case. Not unfrequently a change for the better is observed after the second or third application, and, more especially if the case be of a mild character, often seven or eight days suffice for a cure. If, however, it is severe, a longer time is required, varying from ten days to three weeks. Exceptionally obstinate cases require even longer periods than this, but these are comparatively rare.

Epilation is rarely necessary in parasitic diseases where copper oleate is used.

Using the five hundred cases as a basis, I think better and quicker results—speaking in general terms—are attainable by the copper treatment of the parasitic disease than by any other plan. No better evidence of its permanency is afforded that every case enumerated was relieved *entirely*, not a single relapse having come to my knowledge.

In almost all cases of diseases of the skin, be it parasitic or not, the patient is physically below par, and tonics appropriate to each case are imperatively called for. The proper supporting and reparative measures must vary, of course, with the exigencies of the case.

With regard to untoward effects from the treatment, I have observed, in a limited number of cases, a tendency to the formation of "blind" furuncles. In these instances the furunculous swellings developed, it is true, after the application of the very strong ointment ; but—and this is an interesting point—in many, if not all, of the persons affected with them there existed a more or less well-marked tendency to a strumous diathesis. In consequence of this significant fact, the question has suggested itself to me whether the swellings would not have occurred with the application of any other remedy ; if indeed, they would not have presented themselves any way sooner or later through the aggravating influence of the morbid dermal state.

BEER-DRINKING AND HEART DISEASE.—The most essential factors of the living heart are unquestionably its neural and muscular elements. It may seem superfluous to assert so plain a truth ; nevertheless, the necessity of bearing this fact in mind is demonstrated by every-day experience. If the heart be the subject of debate among medical students at our hospitals, how much do we hear of the murmurs, and how little of the condition of the myocardium ! Our present object is to draw attention to a class of cases which have not received the wide study they deserve. Idiopathic hypertrophy and dilatation of the heart are not phrases which carry their own credentials. To speak openly, the term "idiopathic" is regarded by scientific physicians as a pleonastic cloak for our ignorance. Cardiac hypertrophy of idiopathic sort is said to be of common occurrence in Munich, as compared with other cities. Spatz found that, of 638 men, no less than 35 were affected with so-called myocarditis. Among 433 women there were 23 cases. Of 290 men, between the ages of 30 and 60, there were 41 cases of myocarditis, or about 14 per cent. Of 144 women, at the same period of life, only 10, or about 70 per cent., were affected. Hermann's reports showed 49 cases of muscular disease of the heart in the male among 305 necropsies, while only three females had this condition. Von Buhl looked on these instances of cardiac hypertrophy as the result of chronic myocarditis, which usually ended fatally in consequence of fatty degeneration of the muscle. Bollinger, who has restudied this subject, cannot find any evidences of inflammatory changes or fatty degeneration. At his suggestion, Schmidebauer undertook to establish the extent of the prevalence of cardiac hypertrophy in Munich upon a statistical basis, with a view to making clear its causation. Among 1,000 necropsies there were 46 cases (32 men and 14 women) in which the cause of death was attributed to simple hypertrophy of the heart. As an associated condition, not as a cause of death, idiopathic hypertrophy of the heart was found in 33 other cases, 23 men and 10 women. All cases of enlargement of the heart due to lesions of the valves, or disturbances of the pulmonary circulation, or associated with arterial sclerosis, or granular kidneys, were said to be excluded. Some of the cases were said to be attributed to prolonged muscular effort. But the greater number were believed to be due to habitual excess in beer-drinking, attended with a true plethora, or overcharge of blood. It is argued that the habitual consumption of beer in large quantities tends to enlarge the heart by the direct action of the alcohol on its tissues, by the increase in the amount of fluids in the body, and by the belief that the nutritive ingredients of the beer are easily assimilated. Statements are made to the effect that the average weight of the heart in men is greater in Munich than elsewhere. Both sides of the heart participate in this hypertrophy. It may naturally be asked how it is that sufferers from simple hypertrophy are prone to die of an affection which apparently contains no fatal elements in its composition. The phrase simple or idiopathic hypertrophy is in this respect misleading. Exhaustion of the nervous apparatus without obvious disease of the muscular tissues is the proffered explanation of the fatal result—an explanation not altogether free from valid objections. As an interesting fact it may be stated that during the year 1882 the average amount of beer consumed by each person in Germany ranged, in different districts, from 54 to 186 litres ; in Bavaria it reached 233 litres, and in Munich 432.—*Lancet.*

APOMORPHIA AS AN EMETIC.—Mr. John Brown (*British Medical Journal*) has used apomorphia hypodermically with marked success in several cases in which ordinary emetics produced nausea and depression, but no emesis. He prepared a solution containing a grain of chloride of apomorphia, twenty minims of rectified spirit, and water to two drachms, of which he administered ten minims hypodermically, which equals one-twelfth of a grain. He says :

"From inquiries which I have made, I am convinced that the value of apomorphia, as a safe, certain, and quick emetic, is not appreciated, because not known. In cases of alcoholic and narcotic poisoning, it is a most valuable remedy, and, judging from my experience in one case, the emesis is delayed a few minutes only. In cases of acute gastralgia, and convulsions in children, due to overloaded stomachs, apomorphia will prove a speedy cure. I have given one-sixth of a grain of the drug to children by the mouth without producing any effect whatever."

CEANOTHUS ; LEFT SIDE.—"I gave this because the spleen was enlarged, and I thought its influence on the left side might be beneficial. I was not disappointed, but very much gratified to see that the left side of the thorax began to *grow*, and also the left mamma. It arrested development and hemiparesis."—DR. BURNETT.

XUM

CAN LOCOMOTOR ATAXIA BE CURED?—Dr. Graeme M. Hammond (*New York Medical Journal*, Aug. 30, 1884), after a study of seven "cases of undoubted cure of what was supposed to be locomotor ataxia," arrives at the following conclusions:

1. That the absence of the patellar tendon-reflex in locomotor ataxia is not always caused by sclerosis of the posterior columns.

2. That sclerosis of the posterior column may exist without being accompanied by the ordinarily prominent symptoms of ataxia.

2. That congestion of the posterior half of the spinal cord may give rise to most, if not all, of the symptoms of locomotor ataxia.

4. That it is impossible during life to make a differential diagnosis between posterior spinal sclerosis and spinal congestion.

5. That posterior spinal congestion is curable.

6. That there is no evidence to show that sclerosis once existing in the cord has ever been removed.

7. That those cases of so-called locomotor ataxia which have been cured are simply cases of spinal congestion more profound in the posterior half of the cord.

A STUDY OF THE NUTRITIVE VALUE OF BRANNY FOODS.—From a paper on this subject, by Drs. N. A. Randolph and A. E. Roussel, embodying the results of careful experimentation on animals (*New York Medical Journal*, July 26, 1884), we extract the following summary of conclusions:

1. The carbohydrates of bran are digested by man to but a slight degree.

2. The nutritive salts of the wheat grain are contained chiefly in the bran, and therefore, when bread is eaten to the exclusion of other foods, the kinds of bread which contain these elements are the more valuable; when, however, as is usually the case, bread is used as an adjunct to other foods which contain the inorganic nutritive elements, a white bread offers, weight for weight, a more available food than does one containing bran.

3. That by far the major portion of the gluten of wheat exists in the central four-fifths of the grain, entirely independent of the cells of the fourth bran layer, the so-called gluten-cells. Further, that the cells last named even when thoroughly cooked, are little if at all affected by passage through the digestive tract of the healthy adult.

4 That in an ordinary mixed diet the retention of bran in flour is a false economy, as its presence so quickens peristaltic action as to prevent the complete digestion and absorption, not only of the proteids present in the branny food, but also of other food-stuffs ingested at the same time.

5. That, inasmuch as in the bran of wheat as ordinarily roughly removed there is adherent a noteworthy amount of the true gluten of the endosphere, any process which in the production of wheaten flour should remove simply the three cortical protective layers of the grain would yield a flour at once cheaper and more nutritious than that ordinarily used.

STUDIES ON ALCOHOLISM.—Dr. Mierzejewski, of St. Petersburg, has recently given much study to the results of the abuse of alcohol. He think that the impurities of distilled liquors have much to do with their hurtful effects. He commends, therefore, the example of Belgium, which applies the whole tax on drinks to maintaining the sanitary police, part of whose duty is to secure purity in the beverages. This suggestion of his is worthy the attention of our own legislators.

SALICYLIC ACID IN THE TREATMENT OF CHANCROID.—H. von Hebra (*Weiner Medical Presse; Centralbl. f. Chir.*) recommends the application of salicylic acid to chancroids as an abortive method of treatment. After cleansing the sore thoroughly with spiritus saponis alkalinus, and drying it, pure salicylic acid is dusted on to it, and a little cotton is laid over all, secured in place with a strip of adhesive plaster. It is generally sufficient to change the dressing once a day, but in cases of a free discharge it should be renewed twice daily. In a case related, at the end of three days the surface of the sore had become covered with a moderately thick white crust. The use of the acid was then discontinued, and an emollient ointment was applied spread on linen. After the crust fell off, cicatrization took place in a few days. It is suggested that this treatment is likely to prove a preventive of buboes.

TREATMENT OF BURNS.—Where it is necessary (says Dr. Geo. F. Foote, in the *American Homœopath*) to exclude the irritating effects of the air, as in abrasions or burns, there is nothing so simple as a substitute for the cuticle, as glue—carpenter's glue—applied warm with a soft brush and covered with a thin linen cloth. I have used this for many years with most satisfactory results. It gives almost instant relief from suffering when applied to a fresh burn. It does not grow stiff and hard, being kept pliable by the exuding moisture from beneath; and it does not interfere with the needed drainage. Containing no drug it has no irritating effect. It simply excludes the air and prevents irritation. The use of external medicines is never indicated.

A CONTRIBUTION TO MODERN CHEMISTRY.—The last contribution of modern chemistry to science is the production of quinine from gas-tar. Professor Fischer, of Munich, has succeeded in obtaining from distilled coal a white crystalline powder which, as far as regards its action on the human system, cannot be distinguished from quinine, except that it assimilates even more readily with the stomach. Its efficacy in reducing fever heat is said to be remarkable, even rendering the use of ice unnecessary. The importance of such a discovery as this consists, not so much in the actual fact achieved as in the stimulus given to scientific research by the opening up of a new channel of investigation.

ÆSCULUS GLABRA is recommended by the *Eclectic Medical Journal* in the difficult respiration and cough induced by irritation of the bronchial muscular fibre—a modified asthma—and characterized by a continuous difficulty of respiration, from bronchial contraction, and abdominal pain, also due to contraction.

OBITUARY.

DR. WILLIAM DARLING, Professor of Anatomy for thirty years in the University Medical College, died, of pneumonia, at his rooms in the University, Christmas morning, aged eighty years. Dr. Darling, at the time of his death, was undoubtedly the greatest anatomist of the age, and will long be remembered by thousands of students in every part of the world for his great ability as a teacher, his eccentric habits and his genial and kindly nature. In his hands, the dryest of all medical studies became full of life and interest. Dr. Darling never married, and notwithstanding the happiest hours of his life were spent in the details of his specialty, he was ever the welcome guest in the social circle and at the dinner table, charming all with his wit, his quaint remarks and the inexhaustible treasures of his well-stored memory.

MISCELLANY.

—It is said that aniline is used extensively to color jellies.

—Dr. Duhring says that an emulsion of almonds applied twice daily will remove freckles.

—The corner-stone of a crematory was laid at Mount Olivet Cemetery, Long Island, November 19.

—Lactic acid, used with an atomizer, is an admirable remedy in diphtheritic and scarlatinous sore throat.

—Hepar sulph., 3x trit., has never failed in any case to relieve offensive lochial discharges. Try it.

—Rhus poisoning is reported as curable very speedily by the application of chloroform on paper or rag.

—Lawn-tennis is assuming a pathological aspect through the frequency with which it causes injury to muscles and nerves.

—According to the *Medical Record*, the prophylaxis of cholera is expressed in three phrases: rational quarantine, municipal cleanliness, and personal hygiene.

—Von Bergmann says the enthusiasm about transfusion has died out in Germany, as in England, and the transfusing apparatus lies undisturbed upon the shelf.

—The painful burns produced by nitric acid may, according to a writer in the *Chemical News*, be successfully treated by a dilute solution of sulphurous acid applied instantaneously.

—Dr. Lefferts has relieved the terrible dysphagia of laryngeal phthisis with a four-per-cent. solution of cocaine applied with a brush, the parts having first been washed with an alkaline spray.

—The treatment adopted by Dr. G. P. Atkinson in typhoid fever brain symptoms (*British Medical Journal*) is to apply a blister to the epigastrium. This he has almost always found to quiet the delirium and relieve the patient.

—Dr. Dana says the congestion in the frontal sinuses, which causes headache, is speedily relieved by dissolving three grains of iodide of potassium in half a glass of water and having the patient sip it in the course of an hour.

—Removals.—Dr. S. J. Donaldson has removed to "The Chelsea," 222 West 23d street, where he will devote himself to his specialty of gynæcological practice.—Dr. M. S. Williamson, of Philadelphia, has removed to 1311 Arch street.

—A professorship of hygiene is to be established shortly in the University of Berlin, and a special institute is to be erected for this course of study. Similar arrangements are likely to be made before long in the other German Universities.

—In order to make a plaster set quickly, mix it with water into which a little sulphate of potash has been dissolved; to make it set slowly, mix it with fine slaked lime. The time of setting may be regulated by changing the relative quantities.

—"The Quack Triumphant."—Under the above modest heading the *Medical Record* announces that Prof. Schweninger has begun his duties at the Charité Hospital, Berlin. We commend to the *Record* the old couplet of Burns commencing,

"Oh! wad some power the giftie gie us," etc.

—Aseptol, a new antiseptic, says M. E. Transer, has for its scientific name orthoxyphenyl—sulphurous acid. It is an acid phenol, capable of neutralizing ammoniacal bases It is said to be preferable to phenol as an antiseptic, because it possesses the decided advantage of not being poisonous.

—Among the food products exhibited at the International Health Exhibition, London, 1884, from the United States, were beef peptonoids and maltine; both of these preparations carried off the only gold medal and highest award against numerous competitors in their respective classes. All food preparations were critically analyzed at this exhibition by a jury composed of the best chemists in the country.—*London Lancet.*

—The physicians who were unjustly censured in the case of Joseph Jæger have been exonerated, and the blame, if any, attached to those whose duty it was to provide medical attention. This is another instance in which a coroner's jury have returned a verdict without hearing the testimony of both sides, and to outsiders it seems farcical. There are many cases in which the censure justly belongs to the censuring party, and the statute should provide a remedy in such causes.

—Dr. Malins says that the brain requires twelve hours of sleep at four years old, gradually diminishing by hours and half hours to ten hours at fourteen, and thence to eight hours when the body is full grown and formed. Goethe, in his most active productive period, needed nine hours, and took them; Kant—the most laborious of students—was strict in never taking less than seven. Nor does it appear that those who have systematically tried to cheat nature of this chief right have been in any sense gainers of time for their work. It may be a paradox, but is not the less a truth, that what is given to sleep is gained to labor.

—The *Century Magazine* for January, among other most interesting articles, writes editorially of "the Newspaper and the Organ," in which it says: "If, besides the newspapers, there must be partisan organs, these ought to be distinct and separate in their field of operations. Absolute independence of partisan trammels in its news pages, whatever may be the bias of its editorial columns, should be the rule of every newspaper worthy of the name. The organ need not be more untruthful than the partisan newspapers are now. It is to be hoped that it would not. But at least the onerous task of lying, misrepresenting and traducing characters and motives could be put upon the politicians who manage the other departments of political work not dissimilar to this. The division of labor here pleaded for would render it no longer necessary for great journals to publish barefaced falsehoods in their news pages, and to permit a distinct lowering of the tone of their editorial views for partisan ends. The intelligent reader might like both an organ and a newspaper to consult, just as he might at table like both soup and fish; but as he does not want his soup and fish in the same dish, he will prefer his organ and his newspaper to be entirely distinct and different enterprises. Each is well in its way, but their ways are not the same, and cannot be made so."

A portion of this sentiment may well be taken to heart by some self-styled medical investigators who misrepresent motives much after the plan employed by the politicians.

The field of such investigators is so narrow as to make their conclusions appear dishonest to those who have sufficient intelligence to take a full view of the surroundings.

The scientist knows no party nor pathy, and deals only with demonstrable facts, and those who prefer to dwell in the maze of transcendentalism must expect to remain without the pale of science!

—Australia refuses to recognize American medical diplomas.

—A new medical college, to be called the National University, has been organized in the District of Columbia.

—All nursing bottles are forbidden at the Hôpital Maternité, Paris. The children are fed either with a spoon or a glass.

—A sum of $200,000 has been left to the University of Berlin by the late Countess Bose, of Cassel, for the benefit of poor medical students.

—The *New England Medical Gazette* has increased its number of pages from thirty to forty-eight, and is a most readable and progressive journal.

—Dr. N. Emmons Paine has been appointed Medical Superintendent of the new Westborough (Mass.) Insane Hospital—a most judicious selection.

—A legacy of $300,000 for the establishment of a training-school for nurses, under the control of the University of Pennsylvania will soon be available.

—The *Southern Homœopathic Pellet*, published at Austin, Texas, comes to us in a new and very beautiful dress, filled with matter of more than usual interest.

—The thirty-fourth annual meeting of the New York State Homœopathic Medical Society will be held in Albany, Tuesday and Wednesday, February 10 and 11, 1885.

—Lieutenant Greely says that of his nineteen men who perished all but one were smokers, and that one was the last to die. The seven survivors were non-smoking men.

—As quite *apropos* to the season, considerable space in this number is devoted to the subject of "Medical Education," and we trust our readers will not find the matter uninteresting.

—The official report of the Health Department, in this city, shows that in the ten years ending 1883 there were reported 34,967 cases of diphtheria, of which 15,697 proved fatal, or nearly one-half.

—Dr. Carl Seiler has recently called attention to tincture of benzoin in the treatment of chapped hands and frosted feet. The stocking may be prevented from sticking to the foot by rubbing some oil over the benzoin.

—Dr. Luther Clark died at Lincoln, Mass., September 26. He was graduated from Harvard in 1836, and his life was one to be emulated. May his example long survive him, and help many another to higher aims.

—The *Medical Advance* Co. will enlarge their journal on the first of January by a thirty-two separately paged addition, under the editorial care of Phil. Porter, M.D., devoted to obstetrics, gynæcology and pediatrics.

—Dr. George F. Foote is now receiving patients of both sexes at his "Home" in Stamford, Conn., for the cure of alcoholism, the opium habit, and mild forms of nervous affections. Dr. Foote's careful study and long experience in his specialty are bearing rich fruit in his well-ordered "Home" and more than usually successful treatment.

—The State Board of Health gives, in its bulletin for October, the number of deaths in the State of New York for that month as 5,871. The percentage of infant mortality is 41.01; from acute respiratory diseases 10.08; from consumption 15.04; from diarrhœal diseases 11.1; croup and diphtheria 7.1; typhoid fever 3; from all other zymotic diseases 5.2.

—Drs. H. C. Wood and R. M. Smith, of Philadelphia, will hereafter edit the *Therapeutic Gazette*, the publication office still remaining at Detroit, Mich. We hope Dr. Brodie, the former editor, who has shown such aptitude for the work, and has built up such an excellent journal, will find some other similar field for his efforts, as good editors are scarce.

—The Christian Scientists hold that mind has supreme power over matter; that the sick may become well if they only think so, and, indeed, are well if they believe and act as if they were. They have a church in Boston, and a college where, for $300 one may be taught how to become a healer. Some remarkable cures of nervous troubles have been reported.

—The students of the Albany (N. Y.) Medical College are becoming greatly exercised over the dearth of "subjects," and have entered complaint against the Faculty because they have no bodies for dissection. This term they have had only three bodies, and it is claimed that unless a student engages in a dissection during his first term he cannot legally procure a diploma.

—The Jersey City Board of Health proposes to indict its Board of Public Works, for its neglect of street-cleaning. It would be a proper step to take a similar proceeding in regard to the pavements in New York City, the condition of which utterly prevents their being satisfactorily cleaned, as well as being most injurious by concussion to those who are obliged to ride over them much.

—The scourge which has visited several portions of this country quite remote from each other, is thought to have come from the scanty supply and contamination of the drinking water. The affection manifested itself in a type of intestinal irritation akin to true Asiatic cholera, and was hardly less fatal. The importance of the organization of State Boards of Health which shall be efficient in their work becomes more apparent every year.

—A meeting of the New York State Medical Association was recently held in this city. It is said that it was manipulated in the interest of a little ring which kept out good honest men from membership on personal grounds, which is the natural course of the animus which brought it into existence. The Society was born in malice, and we do not see why it should continue any more than other sectarian organizations with bigotry and intolerance as their chief foundation stone.

—A bill has been prepared for presentation to the Legislature of Pennsylvania providing for a "State Board of Medical Examiners and Licensers" in the appointment of which "seven members shall be chosen from a list of twenty-one names submitted by The Medical Society of the State of Pennsylvania, and two members shall be chosen from a list of six names submitted by The Homœopathic Medical Society of the State." Thus it is proposed to further perpetuate sectarian designation!

—The Chairman of the Bureau of Surgery, American Institute of Homœopathy, Dr. William Tod Helmuth, No. 299 Madison avenue, New York, announces an important change in the work of the Bureau for 1885. A single synoptical paper will be read by Dr. I. T. Talbot, of Boston, on the "Surgical Diseases of the Testicle," not including the cord, the remaining time being appropriated to the discussion of the subject. If the other bureaus would adopt a similar plan and the members be prepared to join in the discussion, each restricted to a limited time, every moment of the session would be full of interest and practical value.

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